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Improving USAF Special Tactics readiness to meet the operational demands of the USAF and US Special Operations Command (SOCOM)

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THESIS

IMPROVING USAF SPECIAL TACTICS READINESS TO MEET THE OPERATIONAL DEMANDS OF THE USAF AND US SPECIAL OPERATIONS COMMAND (SOCOM)

by

Thaddeus P. Allen

June 2002

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The sometimes-divergent mission of the USAF and US SOCOM has strained the ability of USAF Special Tactics (ST) to meet the operational demands of each. The thesis will determine if USAF Special Tactics (ST) can better meet the operational requirements of both the USAF and USSOCOM.

This is not a manpower study but a study of the readiness training required to support the ST operational mission. The thesis identifies ST requirements as the capability to perform its core competencies, Terminal Control, Recovery, and Reconnaissance, and their nine associated core tasks. This thesis will quantify the Training Time Required (TTR) and the Training Time Allotted (TTA) to accomplish the minimum essential training required to meet ST operational demands.

Although the TTR to meet this demand exceeds the TTA, there are strategies available to deal with this training shortfall. With an improved readiness system in place ST can be more prepared to meet the operational demands of both the USAF and SOCOM. Choices must be made to implement a readiness system that best prepares for operational requirements, encourages innovative approaches, and maintains the flexibility to train for emerging missions.

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requirements for the degree of

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I. INTRODUCTION

A. BACKGROUND

U.S. Air Force Special Tactics is in a unique position to operationally support both the U.S. Air Force and U.S. Special Operations Command (SOCOM). Special Tactics must overcome obstacles to effectively support both. First, it must overcome the divergence of the U.S. Air Force and U.S. Special Operations Command (SOCOM). Second, it must employ a refined approach to combat readiness. Sub-optimal organization has strained the ability of Special Tactics to meet operational requirements. Although some overlap exists between Air Force and SOCOM mission, this divergence may continue. Special Tactics has been stretched thin to meet the operational requirements of each.

The purpose of this thesis is to determine if USAF Special Tactics (ST) can meet the sometimes divergent operational requirements of the both the USAF and USSOCOM. This research will determine whether or not Special Tactics requires a different approach to readiness to better meet the operational requirements of the Air Force and SOCOM.

In 1980, the experience at Dessert One during Operation Eagle Claw resulted in critical examination of U.S. special operations capability. The Holloway commission identified the need for full integration of Air Force special operations during these special operation type missions (Rescue Mission Report). Combat Control Teams (CCT) began to move aggressively in that direction.

When Air Force Special Operations Command (AFSOC) formed on May 22, 1990, many questions were left unanswered. CCT capabilities that existed in the Air Force were removed and placed entirely under the control of AFSOC. Special Tactics Squadrons (STS), comprised of Combat Controllers and Pararescuemen (PJ), emerged as a key component in Special Operations arena. Special Tactics is still likely tasked against operational war plans based on conventional Air Force capabilities. However, a problem may exist because ST has also become an integral link in the air-to-ground interface for many SOCOM missions.

From October 2001 through March of 2002 Special Tactics operators exhibited an amazing asymmetric impact during Operation Enduring Freedom (OEF). Special

Operations Forces (SOF), touted as having a leveraged impact during combat operations, were acknowledged for their leading role during OEF. Special Tactics further exemplifies this asymmetric impact. Special Tactics operators constitute only 3.6% of AFSOC forces. ST is merely eight tenths of one percent of US SOCOM. However during OEF operations up to Operation Anaconda, which began in early March, Special Tactics was responsible for control of 85 % of all air strike missions (Hutton). ST orchestrated air assets throughout the battlespace using fire support, terminal control, and airspace control measures. ST integrated the entire spectrum of aircraft weaving together their capabilities including attack profiles, airspeeds, altitudes, loiter times, munitions effectiveness and Probability of Incapacitation (PI), communications, and sensor capabilities to maximize the effectiveness of air power. The ST operator acted as the human CPU integrating the Air Order of Battle (AOB) with the Ground Order of Battle (GOB). This role undeniably indicates the leveraged impact ST can have during wartime operations.

ST proved its asymmetrical impact involving airfield operations, Personnel Recovery (PR), trauma medicine, force protection, coalition support and integration, and as the vital link in the air-to-ground interface. ST was critical to initial theater access and control of vital aerodromes. ST was responsible for 100% of the 21 tactical airfield surveys ensuring theater access. U.S. and coalition forces operated from 15 separate austere or expeditionary airfields in three countries throughout the region. ST controlled 100% of these airfields until relief of Combat Controllers by follow on forces began in the middle of January 2002 (Hutton). The impact of the first ever combat employment of the Mobile Microwave Landing System (MMLS) should not be underestimated. Because Afghanistan is a landlocked country with limited secure land routes, virtually all infiltration and resupply of forces was accomplished by airlift. ST enabled continuous airlift operations, day and night, controlling over eight thousand sorties during all conditions including low visibility and Instrument Meteorological Conditions (IMC). The impact of failed airlift operations would have severely damaged OEF effectiveness.

In addition, ST Combat Controllers and Pararescueman were involved in at least five major rescue and recovery operations. The disproportionate impact of a good faith effort to ensure the well being of stranded, injured, or wounded U.S. and coalition forces

including friendly Afghani forces is indisputable. Pararescueman saved lives and flew on 100% of all airborne operations through February of 2002 (Hutton). This rescue, recovery and battlefield trauma capability acted as a visible insurance policy against the unavoidable friction of war

Unfortunately the total manning authorized for Combat Controllers and Pararescuemen has remained at virtually the same level for the past 25 years. The actual manning of authorized positions is presently about 74% for Combat Controllers and approximately 80% for ST Pararescuemen (Scott). Special Tactics has set lofty goals for its teams. Special Tactics mentality is to focus on quality at the expense of quantity if necessary. Special Tactics continues to strive to accomplish many missions even while it is severely undermanned. ST operational requirements have increased over the last two decades. Not only have mission requirements expanded, mission complexity has driven the range of required skills wider and wider.

As the Air Force evolves, Special Tactics is uniquely postured to support Air Force operational requirements. According to Air Force Doctrine Document 2-7, Air Force Special Operations, "First and foremost, AFSOF are airmen who bring a distinct perspective in the precise application of aerospace capabilities in support of both Air Force and special operations forces (SOF) missions" (AFDD 2-7, p. 1). The relevance of Special Tactics to the Air Force and SOCOM is directly tied to the close relationship maintained with the parent service. If Special Tactics is to remain a viable force enabler, it must maintain a close tie with the Air Force as that force evolves. Special Tactics must continue to bring with it the necessary airmanship skills and unique integrated perspective in order to contribute to SOCOM's various missions.

A clear delineation of specific Special Tactics roles and requirements is needed. A balance must be struck with regards to how ST will support each component. As a high demand and low-density careerfield ST cannot afford to be unprepared for operational requirements.

B. SPECIAL TACTICS OPERATIONAL REQUIREMENTS

What are the ST operational requirements? The generic ST unit mission identification statement is contained within the 2001 STS Designated Operational Capability (DOC) statement. The first requirement is, "Fast reaction, rapidly deployable

force capable of establishing and providing positive control of the air/ground interface in defined objective area during special operations and/or conventional missions" (SORTS DOC, p. 1). The second requirement, "Conducts reconnaissance, surveillance, assessment, and establishment of potential/selected assault zone sites, and positions/monitors terminal and en route navigational aids and target designation equipment" (p. 1). The third ST requirement is, "Provides VFR and limited IFR air traffic control services, long-range secure command and control communications, and forward area refueling rearming points" (p.1). The fourth ST mission requirement is, "Provides combat medical and trauma care, and establishes/operates casualty collection and transfer points. Provides personnel recovery forces and mission management for conducting combat search and rescue, unconventional assisted recovery, and non-combatant evacuation" (p. 1). The final primary mission requirement is "Provides terminal attack control for close air support operations" (p. 1).

Additional information regarding infiltration means and supplemental tasking is provided in the same DOC statement. ST infiltration requirements are, "capable of employing by static line/HALO/HAHO parachute scuba, watercraft, all-terrain vehicles, or any other means available, day or night" (p. 3). ST must also "remove obstacles from the objective area with demolitions, gather and report intelligence, and provide local weather observations" (p. 3). In addition, ST "provides operational interface, orientation, and training for U.S. and allied personnel, including Foreign Internal Defense for Air Force Special Tactics operations and procedures" (p. 3). A critical point contained in the final supplemental mission requirement is, "the unit may be tasked as augmentation forces" (p. 3).

C. OBJECTIVE

This thesis will not analyze the manpower required to support the operational requirements of the Air Force and SOCOM. Rather it will study the readiness training required to support the ST operational mission. It will not determine the number of ST operators required to support individual war plans. This thesis will determine the training that is required of any ST operator that is expected to deploy in support of those plans.

This thesis will examine the operational requirements placed on the Special Tactics careerfield. The greatest challenge to each Special Tactics Squadron (STS) is to

maintain its operator's combat readiness at the highest level feasible. Each STS must be fully prepared to accomplish its stated mission and meet any mission it is tasked to accomplish. Identifying only essential training is vital to accomplishing this goal. Each squadron has compiled its Mission Essential Task Listing (METL). The breadth and depth of training required to meet squadron METL's is fairly daunting. A detailed list of minimum essential training events is published in the current Air Force Special Operations Command Instruction (AFSOCI) 36-2204, Special Tactics Operator Training. The complexity of modern special operations and ST's worldwide involvement in these missions requires proficient expertise of the highest level.

This thesis will quantify the total Training Time Required (TTR) to accomplish the minimum essential training events. Quantifying the TTR for training events will be based on the 720 STG input, the 1993 ST reengineering study, expert advice from various sources, squadron input, and personal experience. Although this method leaves room for error or disagreement, the most accurate, fair, and impartial judgments will be made. A set standard will be applied to maintain consistency within this judgment process.

The thesis will also attempt to accurately estimate the Training Time Allotted (TTA) for operational training. Operational training is defined in Joint Publication 1-02, DOD Dictionary of Military and Associated Terms, as "Training that develops, maintains, or improves the operational readiness of individuals or units" (Joint Publication 1-02, p. 318). The method used to estimate the TTA for operational training involves a simple formula. First, the 720 STG Special Tactics Tasking Allocation System (STTAS) is used to identify operator availability. Each squadron must provide the 720 STG with a percentage of its manpower. Presently the Group requires 60 percent of each squadron's operator manpower. In essence, this means that the squadron only owns 40 percent of its time. It is during this 40 percent that all essential individual an unit training must be accomplished. Although some operational training might be accomplished during the Group's time, the squadron should not include this time when considering training to meet squadron METL's. In addition, operators are expected to be trained, and ready to accomplish operational missions during the time allotted to 720 STG. In other words, operators are required to be proficient in the necessary skills during this period of "Group control".

The second feature used to determine the training time allotted is the 1996 Air Force Manpower Availability Factor (MAF). For the purpose of this thesis, the MAF is used to help determine how much actual training time exists during the period the squadron controls METL training.

D. SCOPE

The primary focus is on Special Tactics operational readiness. Joint Pub 1-02 defines operational readiness as, "The capability of a unit/formation, ship, weapon system, or equipment to perform the mission or functions for which it is organized or designed" (318). Readiness measures the ability of a military unit to accomplish its assigned missions. The Status of Resources and Training System (SORTS) produces unit "C-levels" that capture the proportion of the wartime mission the unit can perform. Personnel readiness is one factor used to measure overall unit readiness. In addition, material readiness and unit training are used to measure the unit readiness. Research in 1997 by RAND indicated that, "Personnel Readiness is comprised of five attributes—available, qualified, experienced, stable, and motivated—are necessary and sufficient for measuring and predicting personnel readiness" (Schank, p. 9). This thesis will focus primarily on one of the above factors, qualified. Although the other factors are also crucial ingredients to combat readiness, they are beyond the scope of this thesis. According to Schank, personnel readiness is the building block of the overall readiness of the unit (p. 6). This work focuses on personnel readiness because gaining and maintaining qualified and current personnel in required tasks is the major ST obstacle.

It might be argued that having the necessary equipment is useless when personnel are not available and trained to employ that equipment. The ST bottleneck or limiting factors seems to be manpower and the ST readiness/training process. Increasing the number of manned ST billets will not alleviate the problem without a focused training system in place. Therefore, the primary focus of this work is on the system used to define, achieve, and maintain readiness.

The 720 Special Tactics Group (STG), based at Hurlburt Air Field, Florida, has made some significant changes. A long-term concerted effort is underway to increase the percentage of manned ST billets. The 720 STG recently implemented a new program to increase the percentage of manned ST operator billets. The ST Advanced Skills Training

(AST) program takes control of a process previously owned by the Air Education and Training Command (AETC). AFSOC and the 720 STG felt they could improve the quality of training and increase the total number of operators qualified per year, if AFSOC owned the process. The objective of the AST program is to provide Special Tactics Squadrons with combat ready 5-level operators. According to AFSOCI 36-2204, Special Tactics Operator Training, **"**A 5-level must be able to accomplish unsupervised performance of low to medium complexity tasks and supervised performance of medium to high complexity tasks" (AFSOCI, p. 11). The squadron must then take this 5-level operator, maintain his currency, build his proficiency, begin his upgrade process, and program for his advanced training. In conjunction with AST, an improved training and readiness system is needed to raise the level of combat readiness throughout the ST careerfield.

In the long term, AST should provide more ST operators to the squadrons. However, without improving the ST readiness training process, the squadrons will face severe training challenges. This situation might result in a situation where AST produces more operators but they continue to be trained to an insufficient level once assigned to a squadron. If ST operator manning increases and the present readiness system remains in place, combat readiness will not be maximized. The level of pain might be spread throughout a larger pool. However, with an inefficient readiness training process in place there remains a significant risk of encountering an operational readiness shortfall.

A goal of this thesis is to identify how to improve overall readiness without necessarily having to increase manpower. ST can be better prepared to accomplish its mission with the present level of manning. The way to accomplish this objective is to develop a readiness system that maximizes the effect of focused training. If or when the AST begins to produce more 5-Level operators, the improved ST readiness training system will be in place to integrate a greater number of operators and maintain their combat readiness.

Some limitations were encountered in the course of researching this thesis. Special Tactics has only been in formal existence since 1990. The amount of published material is limited. Without fully exploring the reasons for the lack of documentation, a cursory look indicates that its relative size, security concerns, the continuous pace of ST

operations, and limited manpower to actually accomplish formal documentation are all contributing factors. The amount of historical numerical and factual data on ST deployments, training system, and operations tempo are also insufficient. In addition, limited work has been published concerning this readiness problem.

Studies accomplished by the Air Force approach manpower and combat readiness from a completely different viewpoint. Traditionally manpower studies have approached manning by defining what must be accomplished. For instance, A-10 aircraft maintenance must be accomplished. Each A-10 aircraft requires X hours of maintenance per month. Each Air Force maintainer works 160 hours per month. Therefore the manning required per aircraft is determined by a formula: X maintenance hours required per aircraft per month divided by 160 man-hours per month equals Y number of aircraft maintainers; (X / 160 = Y). The A-10 squadron has 30 assigned aircraft. Therefore the squadron's aircraft maintenance manpower is set at 30 times Y.

Unfortunately this formula does not work for ST manpower nor does it translate into operational readiness. The ST operator is more like the weapon system. The weapon system requires X hours of maintenance per month to keep it operational. The ST operator requires a given amount of training to keep him operational. As a matter of fact, ST operators are technically classified as a weapon system (Oeser).

A 1999 RAND study asserts that, "Readiness depends on the unit's access to resources (personnel and equipment) and to processes (training and maintenance) needed to keep these resources combat- ready" (Cook, p. 35). The ST operator requires specific training to maintain his combat readiness. Identifying whom to train, what task to train for, and when to train for that task is the issue at hand. These decisions comprise the processes needed to keep the operator combat ready.

E. ORGANIZATION AND METHODOLOGY

The literature on the subject of combat readiness does acknowledge the adverse affects of the high operations tempo. It appears that the high demand for Special Operations Forces (SOF) will continue, if not increase. Many approaches to improve ST combat readiness have been undertaken. Instead of focusing on improving ST manpower, this thesis will attempt to improve Special Tactics' approach to readiness.

The methodology was kept as simple as possible. The methodology employed in this thesis is comprised of six steps. Step one; determine what is required of ST. Step two; quantify the Training Time Required (TTR) to meet said requirements. Step three; determine how much time is available to train for the established requirements. Training Time Allotted (TTA) is the quantified sum of time allotted for training. Step four; compare the two, is TTA < or > TTR. Step five; identify alternatives to the ST approach to requirements and training. Step six; make recommendations concerning approaches to requirements and training.

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II. SPECIAL TACTICS OPERATIONAL AND TRAINING REQUIREMENTS

This chapter will provide a layman's definition of the ST mission. The chapter also identifies the tools used to operationally task ST. A simple description of Mission Essential Task Listing (METL) development is then provided. This chapter describes ST's contribution to AFSOC's mission. These contributions drive training requirements. The chapter describes the process the commander uses to identify these training requirements, its METL, to ensure his unit is prepared to accomplish it's assigned mission. The chapter then presents a spreadsheet designed to quantify the Training Time Required (TTR) to meet the METL. A minimum set of training tasks has been developed by the 720 STG to support the generic ST METL. This spreadsheet is a direct representation of these minimum training tasks.

A. SPECIAL TACTICS MISSION

The layman's definition is one that those outside ST will understand. Joint Publication 1-02 defines a Special Tactics Team (STT) as,

> An Air Force team composed primarily of special operation combat control and pararescue personnel. The team supports joint SO by selecting, surveying, and establishing assault zones; providing assault zone terminal guidance and air traffic control; conducting direct action missions; providing medical care and evacuation; and coordinating, planning, and conducting air, ground, and naval fire support operations.

This is the definition most often used to gain an initial understanding of ST. Those knowledgeable about the ST mission would add, "The USAF STT are weapon systems that are vital to the delivery of air power and to theater and joint task force commanders" (Strategic Planning Process, p. 1). Additional clarification would add, "The STT also links air power customers to vital capabilities such as weather analysis and rescue" (p.1).

The Department of Defense's deliberate planning system produces various plans to meet the national military strategy. These plans include Operational Plans (OPLAN's), Functional Plans (FUNCPLAN's), Concept Plans (CONPLAN's), and Theater Engagement Plans (TEP's). (JFSC PUB, p. 4-26). In essence, all ST operational

requirements flow from these plans and any applicable external directives. External directives usually consist of various supporting plans such as mobilization plans, mission training plans, force integration plans, installation wartime transition and deployment plans. (FM-25-100, p. 2-1)

B. MISSION ESSENTIAL TASK LISTING DEVELOPMENT

Each commander identifies the war plans and external directives that apply to his unit. The commander then exercises his judgment and analysis to produce Mission Essential Tasks (MET). The tasks are compiled creating the Mission Essential Task Listing (METL). The commander has the responsibility for developing a training strategy that will maintain unit proficiency for all tasks that have been designated as mission essential. "There should be no attempt to prioritize tasks within the METL. By definition, all tasks that have been placed on the METL are equally essential to ensure mission accomplishment" (FM25-100, p. 2-1).

The METL is the commanders guiding document to maintain focus on the primary task at hand, combat readiness. The limited size of ST precipitates a precise approach to readiness training. This is articulated clearly in AFDD 2-7, "Economy of force requires clearly articulated objectives, priorities, and a disciplined strategy-to-task approach to planning" (AFDD 2-7, p. 6). The 720 STG developed clear ST objectives and priorities. It also designed a strategy to task approach articulated in AFSOCI 36-2204.

C. SPECIAL TACTICS CORE COMPETENCIES

The ST core competencies are a function of the AFSOC mission areas. AFSOC mission areas are a function of the overall Air Force core competencies and U.S. SOCOM's primary missions. The six Air Force core competencies are: Air and Space Superiority, Information Superiority, Global Attack, Precision Engagement, Rapid Global Mobility, Agile Combat Support.

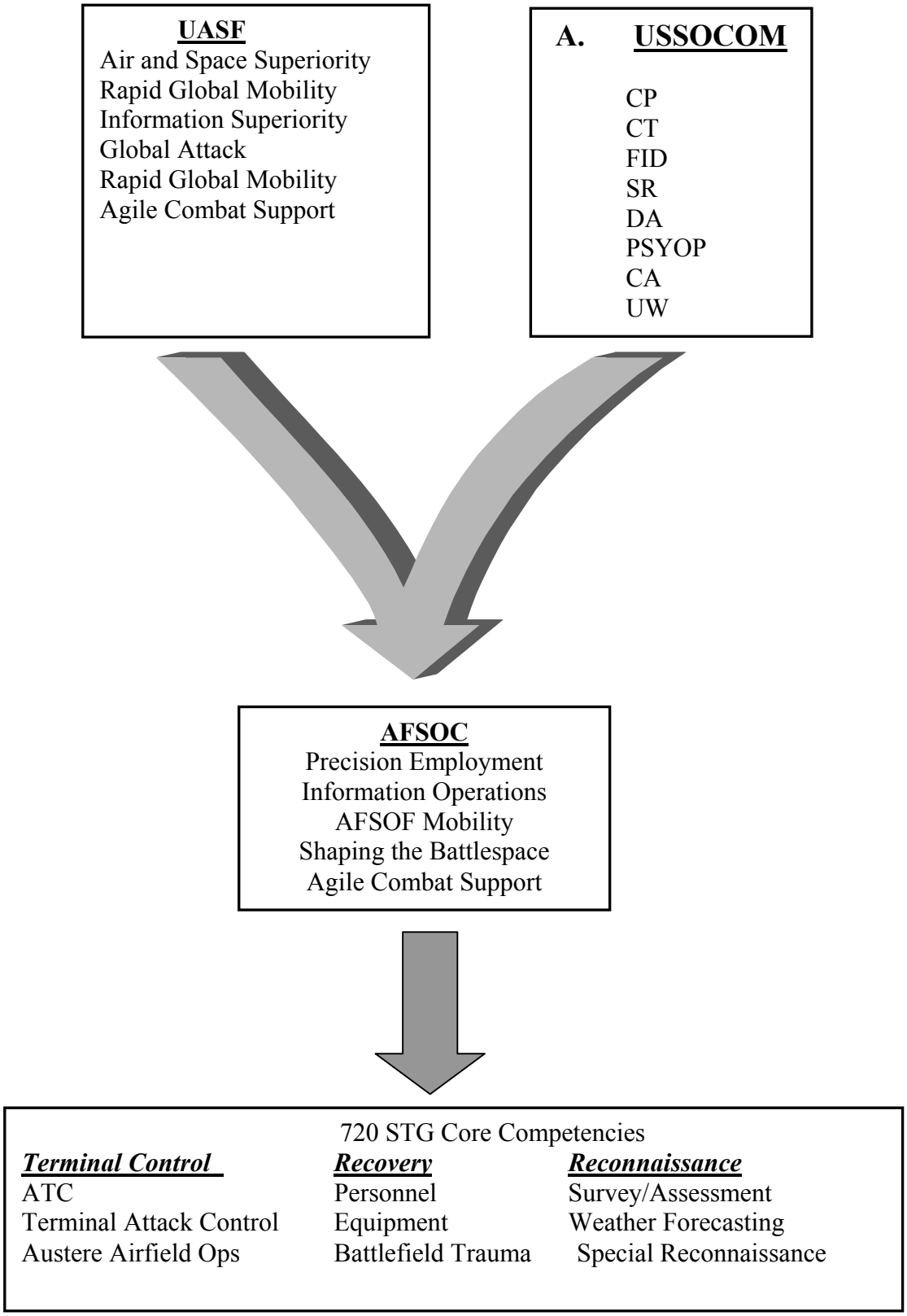
The nine primary SOCOM missions are: Counter proliferation (CP), Combating Terrorism (CT), Foreign Internal Defense (FID), Special Reconnaissance (SR), Direct Action (DA), Psychological Operations (PSYOP), Civil Affairs (CA), Unconventional Warfare (UW), Information Operations (IO). AFSOC derived five mission areas from these six core competencies and nine primary missions. The five AFSOC mission areas

are: Precision Employment/Strike, Information Operations, Air Force Special Operations Forces (AFSOF) Mobility, Shaping the Battlespace, and Agile Combat Support (AFDD 2-7, p. 15).

The 720 STG has identified three core ST competencies: Terminal Control, Recovery, and Reconnaissance. These three core competencies are supported by three core tasks. Air Traffic Control (ATC), Terminal Attack Control (TAC), and austere airfield operations are three core tasks that support the Terminal Control core competency. The following core tasks support the ST recovery core competency, Personnel Recovery (PR), equipment recovery, and battlefield trauma medicine. The three core tasks that support the reconnaissance core competency are surveys and assessment, weather forecasting, and Special Reconnaissance (SR).

Figure 1 on the following page illustrates how the Air Force core competencies and SOCOM primary missions are integrated into the five AFSOC mission areas. The three ST core competencies are derived from these mission areas. Finally, the nine core ST tasks are the end product of this process.

Figure 1. Special Tactics Core Competencies



Air Force Doctrine Document 2-7, Air Force Special Operations, illustrates numerous ways ST contributes to the five AFSOC mission areas. This document is crucial to acknowledgement of AFSOC's role within the Air Force. The combination of doctrine, training, and organization is vital to every unit's battlefield capabilities (Tellis, 2000). As with all doctrine, AFDD 2-7 directly contributes to the training, organization, and employment of ST on the battlefield. It describes how ST contributes to precision employment/strike mission area. "AFSOF precision employment/strike ground elements and airborne platforms provide all weather weapons delivery and support (target designation, air traffic control, and drop zone and landing zone operations) across the full spectrum of conflict" (AFDD 2-7, p. 16).

This document later describes examples of how ST can contribute to IO. Specifically ST makes significant contributions to Information-in-Warfare by infiltrating, operating, maintaining, and exfiltrating a variety of ground-based sensors to provide various types of information. This influential document goes on to state, "AFSOF contribution to rapid global mobility is not limited to aircraft but includes the key ground role played by STT's…STT play an integral part in rapid global mobility. They are the dynamic link between the surface forces and the air assets that deliver, sustain, and recover them (AFDD 2-7,p. 21).

ST is a vital ingredient in AFSOF's contribution to the Air Force's core competency of shaping the battlespace. It accomplishes this through its forward presence and engagement. The FID aspect of AFSOC's mission is also acknowledged in AFDD 2-7. Examples of ST's contribution to AFSOC's fifth mission area, Agile combat support, is recognized as its capabilities involving rescue, medical support, air base defense, force protection, and weather support. It is from the above five AFSOC mission areas that the three ST core competencies flow.

D. 720 STG TRAINING INSTRUCTION

The METL developed by the 720 STG is the product of its wartime taskings, external directives and the application of commander's judgment. The commander developed and implemented a training strategy to maintain ST proficiency. The 720 STG recently produced an updated training instruction. AFSOCI 36-2204 is the group's

guidance for ST training. "This Instruction establishes the combat readiness training program for ST operators, publishes training philosophy, outlines training responsibilities, assigns and defines training events, and provides guidelines for planning, conducting, and documenting ST training" (AFSOCI 36-2204, p. 1). The instruction is the basis used to examine ST training requirements. The instruction directs specific training that must be accomplished. A commander is expected to use this instruction as the "benchmark". The training events outlined in the instruction should be the basis of unit readiness training efforts and help measure the results of those efforts.

Although the instruction specifies a minimum set of training events, the unit commanders may implement more demanding training criteria or additional training events. Each unit's METL contains tasks, conditions, and standards that more explicitly convey the commander's intent. The instruction directs each unit to develop lesson plans for unit-unique training requirements. It also directs each unit to report against the published standard.

AFSOCI 36-2204 describes the ST training program. "The goal of realistic training is to increase proficiency on mission essential tasks until unit qualification is attained" (AFSOCI, p. 8). Training as defined by the 720 STG is unit effort designed to increase proficiency and attain qualification (p. 8). This instruction requires the unit to perform various practical training events. "Practical events are directed by this instruction and support mission or enabling tasks. Practical events are demonstrations of proficiency and the culmination of training. It must be understood by all levels of leadership that many of the practical events are complex and will be the culmination of an extensive training effort" (p. 10). Therefore, efforts to meet the minimum standard are left to the discretion of the unit. Each unit develops and implements it own training program. The training program must be developed to meet the minimum standards set forth in the group instruction but also any squadron unique MET's. These unique MET's are contained in that squadron's METL.

The METL is an unconstrained statement of tasks required to accomplish wartime missions. The METL is not constrained by resource availability. If a commander determines his unit cannot execute all the tasks on the unit's METL to standard, he must request an adjustment of the unit's mission. (FM 25-101, p. 2-2)

E. MISSION ESSENTIAL TASKS

The 720 STG MET's are a direct result of operational demands. "The ST MET list is composed of three mission tasks that each break down into three collective task and five enabling tasks (IAW AFDD 1-1) that enable the mission to be accomplished" (AFSOCI 36-2204, p. 12). The two overarching enabling tasks are Command, Control, Communications, Computers, and Intelligence (C4I), and employment of defensive measures. Three additional ST enabling tasks are deploy, sustain and redeploy, mission preparation, and infiltrate/exfiltrate. From the three core competencies flow the nine core ST tasks depicted near the bottom of figure 1.

F. TRAINING TIME REQUIRED SPREADSHEET

The 720 STG training office developed a list depicting the minimum required events to support the 720 STG METs. This list is then combined with a media training template. The resulting spreadsheet is termed the Training Time Required (TTR) Spreadsheet. It is Appendix A to this thesis. The TTR spreadsheet was developed for this thesis to estimate the time required to accomplish each event listed in AFSOCI 36-2204. The Spreadsheet is comprised of required events, either PJ events or CCT events. These are listed along the left side of the spreadsheet. Along the top of the spreadsheet are the various media available to accomplish the training. The five media are: classroom, Air Traffic Control (ATC) simulator, practical exercise, Field Training Exercises (FTX), and Temporary Duty (TDY). The classroom media is fairly self-explanatory. Each Special Tactics Squadron (STS) operationally controlled by the 720 STG, maintains its own ATC simulator. ATC simulator training is limited to six hours per day (TRSA, p. 43).

Practical exercises are those that go beyond classroom or training devices. They occur in an environmental setting. The training is accomplished in a loosely controlled manner. Hands-on performance is the primary consideration. The pace of training is determined by the progress of the operators. Practical exercise training is limited to 8 hours per day. It must be recognized that not all practical exercise training is considered a "practical event". Practical events are only those specifically listed in AFSOCI 36-2204 as "practical" in the "Event" column on the TTR spreadsheet in Attachment A.

A Field Training Exercise (FTX) is used to accurately replicate a mission scenario. The mission usually drives the training. A complete mission profile is accomplished including mission planning, infiltration, actions on the objective, exfiltration, extraction, and debriefing (TSRA, p. 22). The training is accomplished in field conditions and may require an overnight stay. Each FTX contains 12 hours of training per day. Many of the same events are contained in both the PJ and CCT spreadsheets.

Also along the top section of the TTR spreadsheet there are the total hours estimated per training event. In addition, the spreadsheet has column headings for SORTS and METL's. The SORTS column represents the percentage of qualified ST operators required as a minimum to report "T", trained, for that event/category. Along the bottom of the spreadsheet there are rows labeled Total hours per media and training days per media. The training days per media is determined by the total hours per media divided by the hours in a given media training day. For example, a day of ATC simulator training is limited to 6 hours. Therefore, the training days in the ATC column of Appendix A are: 16 hours/6 hrs per day = 2.67 days.

As mentioned in the introduction, the breadth of ST skills and required operational tasks are fairly daunting. The minimum required training events for PJ training encompass 56 separate events. Five of these events are considered practical events. Practical events are directed by AFSOCI 36-2204 and support mission or enabling tasks. As AFSOCI 36-2204 explains, these events may not be a single event. The practical event might be the final day of training which was arrived at only through previous training and complex preparation. The estimation of training time required per event is a judgment call made by each squadron. Often these PJ practical events require multiple performances in a given nine-month period.

There are 80 separate events listed for CCT operators. The CCT operator is required to perform 13 practical training events. As with the PJ events, some CCT events require multiple iterations during a nine-month period. It should be noted that many of the same events are required of both CCT and PJ's. For instance, both PJ's and CCT operators are required as a minimum to perform a night tactical static line parachute jump two times during every nine-month period.

The above core tasks require intensive training not only to achieve qualification but also to maintain proficiency. Due to the posture of ST and its SOF role, ST must be prepared to accomplish its mission world wide in nearly any environment. Based on these requirements, the ST training instruction states, "The 720 STG/CC will ensure ST forces are trained to execute the following essential collective tasks and ensure they can conduct self-sustained ground combat operations for up to 72 hours worldwide in arctic, desert, jungle, mountainous, urban, and sea environments" (AFSOCI 36-2204, p. 12).

The limited squadron size prevents that squadron from developing teams designated for specific environments. For example, the 22 STS, located at McChord AFB Washington, cannot posture itself to maintain one team as its mountain team. The squadron is prevented from designating one flight as its mountain team because that team cannot be protected from operational deployments. If the unit is tasked with an operational mission requiring mountain skills and it's designated mountain team is already deployed, the squadron would be unable to accomplish its assigned mission. A squadron commander should not be prepared to accept this level of risk. Therefore, the squadron must work to train enough operators in the mountain environment to accomplish that mission. To carry this to its logical conclusion the squadron must maintain the ability meet mission tasking involving each environment in its area of operation including those listed above; arctic, mountainous, desert, jungle, urban, and sea. Each STS has a primary area of operation, however due to the limited number of ST operators worldwide the squadrons are often tasked with mission in its secondary or tertiary area of operation.

G. SPREADSHEET DISCUSSION

The spreadsheet can be a useful tool to help understand the range and depth of skills required of the ST operator. It does not provide an exact scientific quantification of the man-hours required to maintain each ST operator's combat readiness. It must be understood that the training environment within a Special Tactics Squadron (STS) is based on the team. The word "team" is an important holdover from the days prior to AFSOC consolidation when Combat Control Teams existed independently. A team is described in traditional Air Force terminology as a flight. This team/flight is usually comprised of 18 operators. Usually combat readiness training is designed around the

team, its members, and its training shortfalls. The problem with identifying training shortfalls is that each operator's shortfalls will likely vary. Some operators might be sufficiently trained in Small Unit Tactics (SMUT), while another operator may not have trained or accomplished SMUT for a year. Therefore the team must build its training requirements based on its limiting factors, its least trained operators.

The training status of ST operators varies based on the type of mission they have recently supported. For instance, a given operator might have spent the last 90 days deployed performing the personnel recovery mission. He may have been sitting ground alert with helicopter packages ready to launch. Therefore his ATC skills would need enhancement, nearly all his infiltration skills would need to be trained, and most likely all other skills not directly related to the personnel recovery mission would require some improvement. However, his teammate was deployed to a separate location to conduct austere airfield operations. His ATC skills are polished but he needs to train on the personnel recovery mission and his infiltration/exfiltration means. As you can see, Special Tactics Team (STT) combat readiness training must begin with the lowest common denominator and build from the bottom up.

The spreadsheet shows the time input required to accomplish a training event. The estimates are good for planning considerations. The times are estimates and not hard numbers etched in stone. Historically, ST training has been modeled after the crawl, walk, then run concept. Individual operators and teams might progress at different rates. We must also consider time to revisit unachieved training objectives and training shortfalls due to unavailable assets, weather, or other uncontrollable circumstances. In essence, the spreadsheet is only as good as the estimates it contains. With that said, the TTR spreadsheet is a useful tool to help gauge the training that can be accomplished in a given period of time. It is useful in determining the time required to meet the minimum training objectives outlined in AFSOCI 36-2204.

Attachment A contains a full listing of all required events. In addition, this attachment contains an estimate of training time required for each individual event. The 56 separate PJ events will likely require **624.5** hours of training. The 80 minimum required CCT events require **599.5** hours of training. It must be recognized that these are the *minimum* required events. The spreadsheet contains the generic training events

required by the 720 STG. The times contained in the spreadsheet are based on the time required to complete an iteration of the given event.

The times input into the TTR spreadsheet came from various sources. The five sources that contributed to the spreadsheet are the 720 STG lesson plans, 720 STG experts, the 1993 ST reengineering study, the squadron operations staffs, and AST experts. The order of precedence to resolve discrepancies follows the above listing. The 720 STG lesson plans were used for initial inputs. These lesson plans were developed using leading experts from throughout the ST careerfield. The lesson plans standardize training and quantify specific time required to accomplish a limited number of events. The 720 STG experts were then used to provide estimates when lesson plans did not exist for specific events. The 1993 ST reengineering study was relied upon heavily for time inputs of practical events. The 1993 study contained a detailed breakdown of time for specific practical events. However, some practical events were not addressed in the 1993 study. If the 1993 study did not contain information regarding practical events, squadron inputs were solicited. AST input was then incorporated for PJ specific events. The AST instructors provided valuable input based on AST lesson plans and expert experience executing PJ combat readiness training.

There are other considerations that must be addressed. The requirement for an ATC practical is stated as, "Provide ATC service to fixed or rotary wing aircraft during multi-ship air and airland operations in a air traffic environment or simulator" (AFSOCI, p. 14). A problem may arise when considering TTR. According to retired Master Sergeant Al Avialo, a former Combat Controller with extensive austere airfield ATC experience and current ATC simulator operator, the average ATC practical takes 2 hours. Two hours are required to accomplish one ATC practical involving two CCT operators. An ATC practical is what we shall refer to as an individual training event. If the event were accomplished as a team-training event, the time to accomplish the event would be much greater. Given the calculations below, a single ATC training event would require three full days of training if it were scheduled as a team event. Because the ATC simulator can only operate for six hours a day, only three ATC practical events can be accomplished per day. Three ATC training events per day train a total of six Combat Controllers per day. There are 18 Combat Controllers per team. By the end of the third

day of training each Combat Controller will have met the requirement for one ATC training event. Each Combat Controller can only log 2 hours in the ATC simulator over this three-day period. However, while the ATC simulator is occupied, approximately 16 other CCT operators are free to use their time as efficiently as possible to focus on ATC related activities or other training objectives while waiting for their time slot in the ATC simulator.

The ATC practical event serves to identify a management consideration of individual versus team training events. Individual and team events must be incorporated into the team's training plan. The goal is to maximize the effectiveness of the training. This consideration also comes into play for other training events. These events are helicopter Call For Fire (CFF), Gunship CFF, and TAC. The utilization of training is not maximized if all 18 operators attempt to accomplish the same event simultaneously. These events should be accomplished as a less than full flight strength event. The TTR spreadsheet contains the time for an individual to accomplish the event. It does not consider the time for an entire team of Combat Controllers or Pararescuemen to accomplish events that can be accomplished individually.

The generic TTR spreadsheet does not account for the additional time required to meet the advanced qualifications. These qualifications are Auto-CAD, free fall Jumpmaster (JM), static-line JM, helocast master, fastrope master, rappel master, tandem master, and dive supervisor. Although a significant amount of time is required for upgrade and performance of these qualifications, no additional time is factored into the TTR spreadsheet. These advanced qualifications should be accomplished during the training of the actual events.

The individuals performing advanced qualification duties will likely be required to commit time in addition to the time estimated to accomplish the event. For instance, the static-line jumpmaster would likely spend time preparing for the training event after duty hours. This would include such things as preparing a warning order, academic preparation, collecting meteorological data, and coordination with the flying squadron. Although the jumpmaster is required to perform these duties, as far as the TTR spreadsheet is concerned, he is not allocated time during the training day to do so.

The TTR spreadsheet merely contains the minimum required training events. Each unit will invariably have unique requirements. A squadron's regional orientation will likely influence the unique training requirements. The training for these unique requirements might include things such as the Mobile Microwave Landing System (MMLS), Air Base Ground Defense, non-combatant evacuation operations, Air Expeditionary Force integration, Lead Mobility Wing, or Contingency Response Group interoperability. Each unit has the ability to add to the group's required minimum training events. These squadron unique requirements are above and beyond what is conveyed in the TTR spreadsheet.

H. SUMMARY

This chapter initially provided a layman's look at the ST mission**.** The considerations driving ST operational requirements were then described. The METL development process is the result of commander's judgment when applied to two inputs, war plans and external directives. ST core competencies, Terminal Control, Recovery, and Reconnaissance are derived from the five AFSOC mission areas. AFSOC's mission areas are a result of the integration of the six Air Force core competencies and nine SOCOM primary missions. The 720 STG developed nine core tasks to support its core competencies. AFSOCI 36-2204, is the guiding document for ST training requirements. This instruction determines the minimum training requirements for ST operators based on ST METs. A TTR spreadsheet was developed to estimate the time required to complete the training requirements set forth in AFSOCI 36-2204. The TTR spreadsheet can be a useful tool. It helps to understand the training required of ST operators. The ST Pararescueman needs **624.5** hours of training to complete the 56 required events. The ST Combat Controller needs **599.5** hours to complete the 80 required tasks. The TTR spreadsheet provides a means to analyze the training requirements, the media used during training, and the time required to accomplish this training.

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III. TIME ALLOTTED COMPARED TO TIME REQUIRED

This chapter will introduce the U.S. Air Force Man-hour Availability Factor (MAF). Although the MAF was primarily produced to develop manpower authorizations it can be a useful tool for the study of ST training requirements. In addition, the 720 STG created the Special Tactics Tasking Allocation System (STTAS). The STTAS was implemented in 1998 to ensure the ST weapons system could provide combat ready forces to support the CINC's Theater War Plans and provide maximum support for peacetime tasking. The STTAS provides each squadron with a planning factor on which to consider operational requirements, training requirements and the amount of squadron manpower available for each. The 720 STG will attempt to limit operational requirements to 60% of operator strength. The remaining manpower is considered the squadrons. The MAF will then be applied to the remaining time in order to determine the Training Time Allotted (TTA). The resulting TTA will then be compared to the TTR derived in the previous chapter. The chapter will then discuss the significance of the resulting data.

A. THE MAN-HOURS AVAILABILITY FACTOR

The MAF is a feature used to determine authorized manpower throughout the Air Force. It is a planning factor that represents the average time an individual is available to perform their primary duty. The MAF is formulated by removing non available time from the assigned time. Assigned time is defined as the normal duty hours for an assigned individual. Non available time is the average time a member is unavailable for his primary job. Non available is comprised of Permanent Change of Station (PCS) related activities, leave, medical appointments, organizational duties, and education and training. Therefore the simple formula, Assigned hours minus Non Available hours equals Available hours, determines the MAF(MAF, 1996, p. 2).

For the purpose of this thesis the MAF will be used to help quantify the time ST members have to perform their primary duty, mainly combat readiness training. The MAF can help approximate the available hours for ST METL's based training. The MAF is not an exact determination of the available hours. It is an average compiled from

throughout the Air Force. While the ST operator is not the average Air Force member, the MAF can still be a somewhat useful tool (MAF, p. 1).

B. SPECIAL TACTICS' MAF DEVIATION

The accuracy of the MAF is open for debate. We must remember that the non available time used in the MAF computation is an average. The average non available time is influenced by a number of factors. Some of these factors are not universally accepted as accurate. For instance, the estimated time non available for travel to and from appointments is obviously low. Based on practical experience with Permanent Change of Station (PCS) within the Air Force and as a ST Team Leader, the estimated time lost for PCS is very low. With regards to ST, the average is likely low for a number of other factors including the estimated time lost for formal training and education.

ST operators have a greater than average need for continuing education and training. The advanced skills such as the survey course, static-line jumpmaster, dive supervisor, dive-medical technician, FAA Certified Tower Operator (CTO), the Joint Firepower Control Course (JFCC), and other upgrades often require Temporary Duty assignment (TDY). In addition, the ancillary requirements for ST are also greater for ST operators than for the average Air Force member. For instance, each operator must posses a Motorcycle Safety Foundation course completion card. This course can take up to three days to complete. Each operator must maintain a military driver's license with forklift driver, 2.5-ton truck, Humvee, and quad type all terrain vehicles qualifications. The flightline driver's license is also a "must have" qualification. Each unit has unique requirements. One example is that in order to draw ammunition or demolitions from the storage area on Kadena Air Base, an operator must attend additional training to be certified. The list goes on and on. It might also be argued that due to the physical nature of the ST operator job, the instance of injury, and therefore, the amount of convalescence leave or non-available time is also higher for the ST operator than the Air Force average.

Another consideration is that if a ST operator encounters non available time during a given duty day, the majority if not all of that day is "lost" or non available due to missed training. It is often impossible to join a training event midway or without the entire time uninterrupted. Without going into great depth to prove the MAF is a bit high when it comes to ST, this work will accept the MAF as a conservative estimate of the

time available per month for primary duty, but acknowledge that in actuality it might be less.

The MAF published in 1996 is the result of data collection and updated information. The MAF was determined to be 151.5 man-hours per month. This number is up from the 1990 update of 149.2 hours per month. The MAF used by the Air Force in 1986 was only 145.2 hours per month. The 1996 MAF is the peacetime study. A wartime or contingency MAF also exists, but for the purpose of this thesis, the peacetime MAF is most applicable. The 151.5 man-hours per month will be used for all calculations unless otherwise stated. (MAF, p. 1)

C. SPECIAL TACTICS REENGINEERING STUDY

Each Major Command (MAJCOM) of the Air Force has the opportunity to conduct reengineering studies on their command-unique functions. AFSOC is presently conducting the Special Tactics Reengineering study. This study will look at squadron, group, and MAJCOM-level functions. It will analyze both the CCT and PJ Air Force Specialty Codes (AFSC) but encompass a total of 25 different specialties that support ST. The reengineering study is presently reviewing historical TDY data in order to build a profile of an average CCT and PJ operator for each unit. AFSOC is creating a database that will hopefully provide the average days an assigned operator is TDY and for what reason – contingency, training, etc. Unfortunately the database is unfinished and presently unavailable for release.

Previous attempts to quantify exactly what is required of a ST operator have fallen woefully short. The standard Air Force approach is to create a Process Oriented Description (POD) for each Air Force Specialty Code (AFSC). This seems to work well for support functions within ST squadrons. However, an accurate POD for the Pararescueman and Combat Controller AFSC has never been successfully developed. (Driggers)

D. SPECIAL TACTICS TRAINING AND ALLOCATION SYSTEM

In order to adapt to the lack of accurate data on the PJ and CCT AFSOC's, this work adopted the STTAS as guideline to quantify the time available for training. The STTAS was implemented in 1998. It is an attempt to develop a way to better support the USAF, USSOCOM, and SOC warfighters in all theaters. It also hoped to facilitate the

necessary joint training required to remain combat ready. Unit commanders are required to provide mission support to primary missions. These include contingencies and wartime taskings, Joint Chief of Staff exercises, joint exercises, and exercise planning conferences. This requirement amounts to 30 % of the available personnel. The secondary missions also generate a requirement for an additional 30 % of available personnel. These missions include unilateral aircrew support, Joint Airborne Air Transportability Training (JA/ATT), Special Assignment Airlift Mission (SAAM), bilateral exercises, training at the Joint Readiness Training Center (JRTC), static displays/demonstrations, recruiting assistance, and assault zone surveys. The unit commander is allocated 40% for combat readiness training. From this 40%, the commander must take out of hide any formal schools required of an operator and leave (Oeser).

The 60/40 policy was developed over time. It is justified through the 720 STG experience with ongoing, reoccurring, and traditional requirements. ST does not currently have a designated portion of its assets specifically protected from operational deployments and dedicated to mission essential combat readiness training.

The 60/40 policy is a guideline. Although the group's requirements may fluctuate over time, it implemented this policy to protect itself and the squadrons. The demand for ST operators easily exceeds the supply. Without this or a similar policy, each ST operator could easily be tasked nearly year round. The present operations involving Operation Enduring Freedom are a good example of this fact. This 60% group policy is designed to draw the line at a pain threshold to ensure operator training is protected. The policy does provide each squadron with guidance that can be translated into the squadron's planning considerations. Each squadron has developed its own process implementing combat readiness training.

E. TRAINING TIME ALLOTED

The Training Time Allotted (TTA) a squadron for operational readiness training is the total time, expressed in hours, that a given operator is afforded to accomplish METL based training. The time frame in which the TTA is expressed is a nine-month period. The purpose of quantifying the TTA based on a nine-month time frame is to create a baseline from which to relate all other factors. The majority of all MET events

are required to be performed a given time per nine months. A few events have yearly requirements. These events will be converted to reflect the nine-month requirement. However, we must consider the fact that under the best case conditions, each team will accomplish dedicated training only once every nine months. If an event is not accomplished during dedicated training, it will likely be overdue by the time the next dedicated training block occurs. Therefore, even yearly requirements may actually be accomplished once every nine months. The training events required once every 12 months are minor and require a relatively small amount of time. The amount of overkill is negligible if these events are accomplished once every nine months as opposed to every 12.

The 1996 MAF study determined that the MAF is **151.5** man-hours per month. This factor incorporates many factors discussed above including leave and formal schools. In a given nine-month period there are **1363.5** man-hours available. If we take 1363.5 and apply the 40 % allocated in the STTAS, the resulting TTA for a nine-month period is 545.5. The 545.5 hours is the most accurate and useful individual TTA that can be determined at this time. The **545.5** hours is the sum total of time available. Within this 545.5 hours, every operator must complete the required METL based training events required by AFSOCI 36-2204.

There may be an area of contention when using this formula. It would likely be considered optimistic by ST operators, flight commanders, and squadron commanders who have dealt with the real world operational environment. Most ST squadrons attempt to provide each team with one dedicated training cycle every nine months. This equates to approximately 3 months or 13 weeks of training. If we apply the MAF to this outlook the TTA results in only 454.5 hours. This is 91 hours less than the TTA above. The discrepancy is a result of the squadron's block training system. The team is allotted dedicated training for 3 months, (33%) of the nine-month period. However the 60/40 STTAS split provides for 3.6 months of training every nine months. This means that the 91 hours difference is the result of training time that is allotted but not necessarily dedicated to that team. The majority of the team will be tasked to fill operational requirements. A few individual operators should be available to accomplish training, but

not necessarily team training. Therefore, for the purpose of this thesis the accurate TTA is 545.5 MAF man-hours.

F. THE MAF TRAINING TIME REQUIRED

The TTR spreadsheet must also equate to the above formula. The MAF is derived using an eight-hour workday. The ST careerfield or that of any SOF branch could not survive with only an 8-hour workday. Not only would the unit fail to meet its training objectives, it would fail to prepare its members for the operational environment they are likely to face during contingencies. In order to compare the TTA and TTR we must first convert the 12 hour Field Training Exercise into an eight hour MAF day. The hours spent accomplishing each FTX are added. The total FTX hours are then divided by 12. A given FTX accomplishes 12 hours of training but is equated to one eight-hour MAF day. This process translates FTX hours into MAF hours.

The time spent in the ATC simulator must also be converted using the MAF. Civilian contractors operate the ST ATC simulators. The 2001 ST Training System Requirements Analysis (TSRA) concluded that the maximum time a given simulator can effectively operate is 6 hours per day (TSRA, p. 43). This was determined as a result of transition time between ATC scenarios, software loading time, maintenance, and other considerations. This seems to pass the common sense test. A CCT operator could accomplish a maximum of six hours in the ATC simulator for a given day. In addition to those hours, he would also be responsible for physical training, preparation, records documentation, and provided a short lunch break. A training day with six hours in the simulator would equate to at least an eight-hour duty day.

It should be noted that the 21 STS located at Pope AFB, North Carolina and the 22 STS located at McChord AFB, Washington will likely be required to travel on Temporary Duty (TDY) to accomplish certain training events. These squadrons will need to convert the time spent TDY to the MAF. As a rule of thumb, a one-week TDY should equate to a minimum of 48 MAF hours. The time to travel to and from is not necessarily considered. At a minimum an additional 4 hours would be required for TDY preparation and a minimum of 4 hours would be required for administrative actions following the TDY. The Air Force has a policy concerning TDY and Compensatory

Time Off (CTO). The length of time spent TDY for training events should be limited, however some CTO is usually afforded an operator for a lengthy TDY.

The PJ's have National Registry Emergency Medical Technician (NREMT) qualifications that require TDY travel. The Special Operations Forces Medical Skills Sustainment Program (SOFMSSP) is a 14-day course taught at Fort Bragg, North Carolina. According to Master Sergeant Pat O'Neil, SOFMSSP fulfills all NREMT qualifications (O'Neil). The MAF conversion for this MET training event is: 10(duty days) x 8 = 80 MAF hours. The PJ is allotted one day preparation and one day for CTO because the course runs continuously without weekend break. This brings the total to **96** hours.

G. STATUS OF RESOURCES AND TRAINING SYSTEM

The SORTS percentage does not directly affect each training event contained in the TTR spreadsheet. When the SORTS requirement is 100% it is obvious that every operator is required to accomplish the event in the given time period. We might expect that a SORTS requirement of less than 100 % would affect the TTR. An event with an attached SORTS requirement demands that percentage of the available operators to have accomplished the event once during the designated time frame in order for the squadron to report trained (T). If the squadron were to perfectly manage its resources, it might be possible to only train to the SORTS level. Consider the Rigging Alternate Method Zodiac (RAMZ) MET event. The RAMZ requirement for PJ's is 66%. If the squadron identified two of the three teams as RAMZ teams the 66% SORTS requirement would apparently be met. But this would also put the squadron in serious jeopardy of falling below that 66% line. If training for either the two designated teams failed to materialize, the squadron would be unable to report trained for that MET. The SORTS requirement for the RAMZ MET concerning CCT is only 33%. A SORTS percentage this low could in fact have an affect on the CCT TTR man-hours. Attempting to designate specific teams or operators to meet the 33% would be a management nightmare with the training system presently in place. The SORTS percentage is merely the percentage of available operators that must be trained and current in a given skill for the squadron to report "Trained" to higher headquarters. The squadron might develop a system to maintain only the minimum required percentage current at all times. This system, if developed, does not

alleviate the requirement for every operator to accomplish that event. For the purpose of the TTR spreadsheet, each event must be completed once as per AFSOCI 36-2204.

The spreadsheet does contain a number of special case MET events. The first is Terminal Attack Control (TAC). The SORTS requirement is only 25% of available operators. The squadron may maintain a currency level greater than required but the minimum is 25%. TAC currency is based on AFI 13-102. All terminal air controllers must make one call per quarter. The currency should not be allowed to lapse. The other special case events fall into the infiltration/exfiltration category. These three special case events are night static-line practical, night tactical military free fall, and tactical overland movement. Each event has a SORTS percentage attached to it. The SORTS percentage is tied to multiple iterations of the event. The standard military free fall requirement is a minimum of once every nine months. The SORTS requirement for this event is twice every nine months. This SORTS requirement applies to 66% of the available operators. The same requirement applies for night static-line practical. The tactical overland movement also has a 66% SORTS requirement. It requires four iterations every nine months. These special case events will generate required training hours in addition to the generic hours provided in the TTR spreadsheet, Appendix A.

The additional training needed for these special case events requires a unique approach to computing TTR. Appendix A contains a column labeled “Special Case”. The TTR special case, is the mechanism used to incorporate these events. Twelve operators, 66% of a team, require an additional night static-line practical and an additional military free fall event. The time required to accomplish both of these events is **24** hours. These events would likely be categorized as an FTX and therefore require two additional days of training or **16** MAF hours. The TAC event requires a minimum of three days to accomplish. This will generate an additional **24** MAF hours for each TAC event. However, these hours will only apply to 25% of the team or a total of 5 operators per team. The special case events contribute an additional **600** team man-hours to the total TTR.

H. TRAINING TIME REQUIRED COMPARED TO ALLOTTED

The minimum individual CCT TTR is **572.83** hours. The TTA per combat controller is **545.5** hours. The team's total CCT TTA is **9,819** MAF hours; 545.5 MAF hours x 18 operators. The team's CCT TTR is **10,312** MAF hours. The additional special case events raise the generic CCT TTR by **600** team man-hours. The total CCT TTR is **10,911.** The numbers contained in the TTR Spreadsheets, Appendix A and B, represent the TTR of the 23 STS based at Hurlburt Air Field, Florida. The disparity in TTR and TTA would be even higher for a squadron that must send its operators TDY for TAC requirements, AC-130 Gunship CFF, and helicopter CFF. Appendix C contains the Combat Control TTR for these squadrons. The shortfall of TTA is even greater than that illustrated in Table 1. below.

Table 1. CCT Training Time Required vs Training Time Allotted

TTA (individual)	545.50	TTA (Team)	9,819
TTR (individual)	572.83	TTR (Team)	10,911
TTA Shortfall	**27.33**	**TTA Shortfall**	**1,092**

The minimum individual PJ TTR is **597** hours. The TTA per Pararescueman is **545.5** hours. The team's Total PJ TTA is **9,819** hours. The additional special case events raise the team's TTR, **10,746** hours, by **480** additional man-hours. This addition raises the team's total TTR hours to **11,226** hours. As depicted in Table 2., we have determined that the TTR is greater than the TTA.

Table 2: PJ Training Time Required vs Training Time Allotted

TTA (individual)	545.5	TTA (Team)	9,819
TTR (individual)	597.0	TTR (Team)	11,226
TTA Shortfall:	**51.5**	**TTA Shortfall**	**1,407**

I. DATA ANALYSIS

The TTR spreadsheet tells us quite a bit about the training requirements of ST operators. A good portion of the CCT operator's time is spent accomplishing infiltration and exfiltration training. This phase of the operation accounts for up to one third of the time requirement. There is a danger that focusing on this phase of the operation might lead to a lack of time available for skills that will be required during the next phase of operation, actions on the objective. No one phase is more critical than the next. A failure to train for any one phase of the mission is unacceptable.

The limited time dedicated solely to Recovery is not necessarily an indication of lack of emphasis. The combat controller's role during recovery operations can be very important. However, training specifically for the Recovery mission may not require a significant amount of time. The vast majority of the skills a Combat Controller brings to a Recovery mission are those required during any ST mission. The CCT skills transfer well to Recovery missions. The helicopter CFF training listed in the Terminal Control category is a skill highly applicable to the Recovery mission. Another skill, overland movement, is categorized in the infiltrate/exfiltrate portion of the TTR, but it is also a skill that is crucial during an Unconventional Assisted Recovery (UAR) mission.

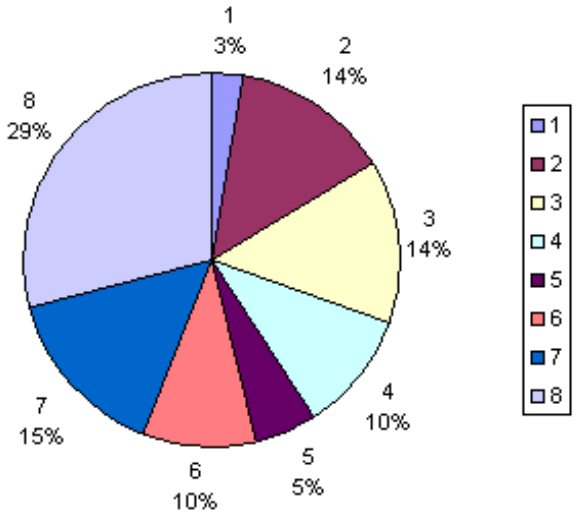
The Combat Controller dedicates approximately 28 % of his requirements to terminal control, the controller's primary skill. This percentage is not excessive. This would seem to in line with mission priorities. The ATC requirement is five ATC practicals every nine months. Because ATC is a perishable skill and the Combat Controller's primary skill, the fact that this event is required more often than any other should come as no surprise. The focused training that can be accomplished in the ATC simulator is extremely valuable. If the same controller were to accomplish similar training in the field, the time requirements would be at least four times greater. The simulator is not a replacement for actual air traffic but the controlled environment enables creation of a valuable training environment. A separate breakdown of dive operations is

provided for quick reference to this skill. Dive operations accounts for 4.8 % of a Combat Controllers time. The dive qualification requirement has come under scrutiny in the past.

Figure 2. TTR Spreadsheet Data

CCT EVENTS

1. Recovery	3%
2. Terminal Control	14%
3. Terminal Attack Control	14%
4. Reconnaissance	10%
5. C4I	5%
6. Defensive Measures	10%
7. Mission prep (FMP)	15%
8. Infiltrate/Exfiltrate	29%



The PJ TTR spreadsheet also contains some very useful data. As with the CCT TTR spreadsheet, it indicates that the training requirements exceed the time allotted. The infiltrate/exfiltrate portion of the spreadsheet contains approximately 27 % of the PJ's time requirements. The Medical category accounts for just over 21 % of the PJ training time required. It should be noted that the NREMT requirements are biannual requirements. The TTR spreadsheet contains data reflecting the year when these requirements are due. The out year is reflected in a separate spreadsheet, Attachment D.

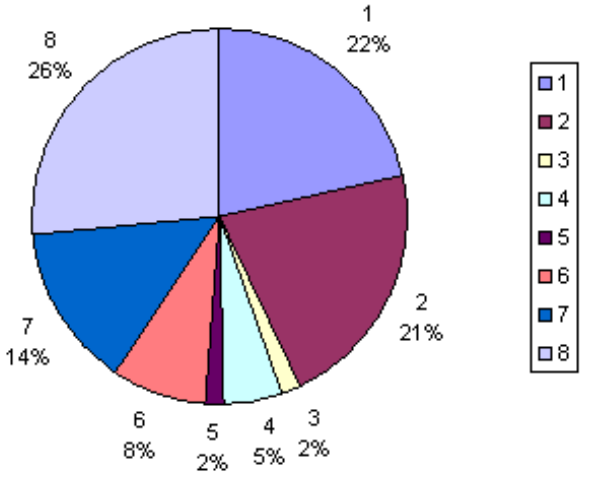
As indicated by the spreadsheet and chart above, Reconnaissance only accounts for 5.1 % of the time requirements. This requirement does not require a significant

commitment of time because the PJ's role during this type mission is limited. The time to train for this mission is a small percentage of a PJ's TTR, but the 32 hours per Pararscueman is valuable considering the shortfall of TTA.

Figure 3. TTR Spreadsheet Data

PARARESUCE EVENTS

1. Recovery	22%
2. Medical	21%
3. Terminal Control	2%
4. Reconnaissance	5%
5. C4I	2%
6. Deffensive Measures	8%
7. Missions Prep (FMP)	14%
8. Infiltrate/exfiltrate	27%



J. UNCOUNTED TRAINING TIME

The TTR encompasses the entire time required to accomplish the actual training event. It does not include the time required to schedule, plan, organize, or coordinate the required training. Each squadron has a process designed to forecast, schedule, and plan readiness training. A complicating factor to consider is that the STTAS stipulated the 720 STG can task 60% of the unit's manpower. If 60% of the operator strength is tapped by the group, who is on station preparing the training plan, conducting coordination, and preparing for the training events required by AFSOCI 36-2204?

The scheduling, planning, and coordinating of readiness training is a time consuming and involved process. Any time spent planning and coordinating is time not spent actually training. Quantifying the time spent planning and coordinating training is

not the effort of this thesis. It should suffice to say that minimizing the time planning and coordinating readiness training is a worthwhile goal. On the other hand, effective planning, preparation and coordination directly contribute to the quality of training and the benefits achieved by that training. The time devoted to set up the training will invariably be deducted from the training time allotted. This fact will make it even more difficult to ensure the operators are fully trained to accomplish their mission.

Many questions arise as a result of the spreadsheet and data analysis. Although many questions may come to mind, most are beyond the scope of this thesis. Questions such as how were these minimum requirements determined? Does the minimum training events qualify ST operators as expert in the given skill set? Do the minimum required training events qualify the ST operator to work in the joint environment at the highest level? These and many other questions are questions that require independent research. They will not be addressed during this thesis.

K. SUMMARY

This chapter was designed to compare the Training Time Allotted (TTA) and the Training Time Required (TTR). By combining the 1996 MAF study and the Special Tactics Training and Allocation System, the total TTA was determined to be **9,819** hours per team. The total TTR was determined by converting the generic TTR, to MAF hours and factoring in special case events that are only required of a percentage of the available operators. The total CCT TTR is **10,911** hours per team. The end result is that the Training Time Available is less than the Training Time Required. The difference in this case is **1,092 hours**. The PJ TTR, **11,226** hours, are also greater than the TTA, **9,819** hours. The difference amounts to **1,407 hours**. The following chapter will attempt to identify what, if anything can be done to improve the situation.

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IV. ALTERNATE APPROACHES

A. INTRODUCTION

If we accept that ST operators have an insufficient Training Time Allotted (TTA), then must we accept that a readiness gap exists? If the readiness gap exists, has it been identified? Has this readiness gap been exposed during contingency operations? If this readiness shortfall has not been exposed, then how does Special Tactics (ST) overcome, disguise, or avoid the shortfall? What mechanisms does ST employ to manage this training gap? What are the consequences of allowing a readiness gap to exist? In essence, has ST developed mitigating strategies to deal with the training shortfall? If ST has developed a strategy to deal with the training shortfall, does an actual readiness gap truly exist? ST has been adept at creative readiness training to ensure a readiness gap does not become a mission stopper. However, it should be noted that in early 2002 the Air Force Manpower and Innovation Agency (AFMIA) identified ST as a Long Haul/Stressed Career Field as a result of Operation Enduring Freedom.

This chapter offers a systematic approach to identify options capable of bringing a resolution to the imbalance in TTA and Training Time Required (TTR). The options are to increase the TTA, decrease the TTR, or a combination of both. Because the TTA formula is comprised of time available and the Man-hours Availability Factor (MAF), it can be increased two different ways. First, the MAF for ST could be increased. Second, providing additional training time would also increase the overall TTA. The options to reduce the TTR are numerous. The first and most obvious way to reduce the TTR is to remove or delete some mission essential tasks. Although this is an option, it is not usually considered a good one. Seven other options to reduce the TTR will be presented.

B. INCREASE TRAINING TIME ALLOTTED

The TTA derived in Chapter three is the combination of training time available and the MAF. The MAF is the time available for conduct of one's primary duty. Increasing time available for ST operators increases the TTA. There are three areas that can increase ST's man-hours availability factor; leave, Permanent change of Station (PCS), and official appointments. Individual leave serves to reduce the MAF. A

controlled management of leave could reduce the impact it has on the MAF. Block leave is a management tool used by a unit to control leave authorization in order to minimize impact on squadron operations. Although block leave is an unpopular management tool, it could be employed to reduce the impact of missed training opportunities.

The PCS of an individual operator has a significant impact on the individual's training time available. A significant amount of time available is lost at the losing base for out-processing. In addition, a significant amount of time is lost at the gaining base for in-processing. Attempts to minimize the effects of PCS moves within ST have been made. A study of the Airman Assignment Management System (AMS) indicates that PCS moves are often driven by the need to fill overseas vacancies (Hill, p. 45). Overseas assignments are normally shorter than stateside assignments. ST units in Okinawa AB, Japan and Mildenhal AB, United Kingdom are the overseas units which might prevent an overall reduction in the number of PCS moves throughout the ST careerfield.

It seems that one way to reduce PCS moves ST wide is to increase the length of overseas assignments. The only other apparent option is to consolidate the overseas ST units. The operators from overseas units could be permanently assigned to stateside units. A support infrastructure would remain forward at the overseas location. ST operators would deploy for temporary duty to the forward locations on a rotational basis. Although this Special Tactics Expeditionary (STX) option has been considered, the benefits, drawbacks, and feasibility has not been fully explored.

The final way to increase the MAF is to manage the official appointments of ST operators. A system could be developed to control when appointments are scheduled in order to reduce the impact on training. This is a difficult task considering the fact that ST operators are off station supporting missions or on station training. The best option is to schedule official appointments when the operator is on station but not involved in dedicated team training.

The second way to increase TTA is to increase the time available. The Special Tactics Training and Allocation System (STTAS) sets group requirements at 60% leaving 40% for squadron needs. There are two major ways to increase time available. First, the 60/40 split could be altered. A 50/50 split would significantly increase the TTA. An equal 50/50 split would provide an additional 136.25 hours of TTA. It would appear that

an equal 50/50 split would virtually solve the problem. Unfortunately the 60/40 split is required in order to meet the 720 STG operational needs. Performing these support functions, exercises, and contingency missions have a valuable positive effect on the readiness of the operators accomplishing them. The experience of hands on actual employment, whether in support of training events, exercises, or actual contingency operations is an invaluable learning and training experience. Reducing this requirement to 50% would reduce the experience gained during these mission support functions. The tradeoff between mission support and dedicated team training must be acknowledged.

Another way to increase time available is to alter how the 60/40 split is determined. Presently any formal schools, Professional Military Education, and leave must be deducted from the squadron's 40%. If the required formal schools such as the ST survey course, jumpmaster school, and Special Operations Forces Medical Skills Sustainment Program (SOFMSSP) were to be deducted from the group's percentage, the time available would increase. This translates directly into increased TTA.

C. REDUCE THE TRAINING TIME REQUIRED

The most apparent way to reduce the TTR is to delete or remove some of the required Mission Essential Tasks (MET). The fewer events the operator is required to perform the less the TTR. Inherently, every MET is critical to the success of the unit's wartime mission. If specific events or core tasks were to be removed, the unit's mission statement must change. The unit's wartime taskings would have to be adjusted to reflect the change in MET's not trained. If reconnaissance were removed from the squadron as a core task, the unit would not be required to train the associated events. A commander who removes any unit MET is acknowledging the unit can not perform its stated mission (FM 25-100).

A more feasible way to decrease the TTR is to increase the number of events performed using Field Training Exercise (FTX) conditions. Increasing the number of FTX's serves to reduce the TTR by increasing the time spent training without increasing the MAF hours. A normal training day is eight hours. A FTX accomplishes 12 hours of training but only accounts for eight hours by MAF figures. This approach is not necessarily a win-win situation. An FTX is an event where the mission scenario drives the training. The ability to control the learning environment is sacrificed for a realistic

training scenario. The training event is mission driven not progress driven. The time to prepare for an FTX should be greater than preparation for a practical exercise. These tradeoffs must be considered when determining the number of FTX events programmed during dedicated team training.

The next way to decrease the TTR is to combine training events. Multiple events could be conducted at the same time. For example, a static-line practical event and an extreme environmental training event could be combined. The jump could be followed by a simulated chemical attack that requires protective actions. This is a simple example and fairly easy to accomplish without significantly impacting the effectiveness of either event. However, the options to perform multiple events simultaneously are limited when considering the true intent of the event.

A variation of combining events can also decrease TTR. A round robin event is one where operators rotate through various training events that are conducted in succession or simultaneously. An example is setting up multiple Call For Fire (CFF) operations on the same range or nearby ranges. One ST element could be in control of AC-130 Gunship CFF while another ST element on the same or a nearby range could be in control of helicopter CFF operations. After each element conducts its CFF training, the aircraft switch to the other element. A true round robin would also include a third event such as an Air Traffic Control (ATC). A third element of the same ST flight could be conducting ATC training. All three elements would rotate through each training event. The TTR to accomplish training in this manner would be less than the time required conducting each event separately.

A good way to set clear, attainable goals, remove distractions, and provide a focused training effort is to create standardized training packages. Standardized training packages can help accomplish more in a given period of time. These standardized training packages could be developed to help ensure training meets the individual and unit training needs. The 23 STS has developed an approach to dedicated team training that uses a training template to identify all forecasted training during dedicated team training. The training template does not impose specific mission scenarios. There is a danger, especially in the Special Operations community, when attempting to standardize that innovation, flexibility, and creativity will be stymied. Standard training packages

help accomplish the most in a given period by identifying areas of primary concern. The 23 STS training template is comprised of standard training packages that identify not only what training will be accomplished, but also what training will not be accomplished. At least this approach gives the squadron commander visibility on his unit's training shortfalls.

In theory, each ST squadron should shortly be able to improve its training program. When the Advanced Skills Training (AST) course begins providing combat ready operators, the squadron can eliminate or compress the crawl phase of the crawl, walk, run, training approach. All squadron operators will already have a minimum level of experience. The need to begin at square one should be eliminated. Combine this concept with the approach to training that the most effective way to train is to maintain a minimum level of proficiency at all times and a useful system emerges. An old fitness saying is that, "the best way to get into shape is to never get out of shape." If the operator's proficiency is never allowed to deteriorate below a minimum acceptable level, training is more effective. For instance, if an operator fails to make a MFF jump for 90 days he must first do a day non-equipment jump before accomplishing a night MFF practical. This adds a minimum of 8 hours of training that could be better used elsewhere. Implementing a system to prevent the time consuming process of regaining a basic proficiency could be highly beneficial.

D. MINIMUM "SORTS" REQUIREMENT

The TTR spreadsheet, attachment one, contains a Status of Resources and Training System (SORTS) percentage column for specific MET events. The TTR could be reduced if ST were to maintain only the minimum requirements for each of the required SORTS events. One system to accomplish this is to designate flights according to infiltration means. For instance, one flight would be the air operations team. It would train the airborne infiltration means. Another team would be designated the Scuba team. This approach has been attempted in the past. A squadron organized along these lines encountered many difficulties. The team generally lost focus on its primary objective, the mission once in place. The tendency was to over-train the infiltration portion of the mission. ST can not organize along these lines. Mission constraints dictate the

infiltration method employed. ST operators must have the flexibility to infiltrate via the most viable means necessary.

E. CORE MISSION SPECIALIZATION

Limited manpower is partially responsible for the requirement to develop ST operators with the necessary skills to perform each of the three core ST missions. In general, ST does not specialize an operator's skills to allow a focus on a specific core skill. Each operator is expected to maintain the skills necessary to perform nearly any ST mission. However, an effort to specialize might prove beneficial. Specialization could increase the ability of a team to fully train its operators for a given mission.

Presently ST does not task organize in the true sense of the word. Each operator is considered a jack-of-all-trades. Each seven level controller is virtually interchangeable for every other seven level controller. The same goes for PJ's; on paper a PJ is a PJ. Unlike Army Special Forces (SF), which maintains specific specialties within the team, a Combat Controller is Combat Controller. A SF Operational Detachment Alpha (ODA) is usually comprised of 12 members possessing one of five specialty skills. A Special Tactics Flight is comprised of 18 ST operators. Each Pararescueman or Combat Controller shares the same skill sets. Each Combat Controller completes the same two-year CCT training pipeline. Each PJ completes the same two-year PJ pipeline.

However, once assigned to an operational squadron there may be an opportunity to specialize. ST could develop a system to allow emphasis on specific skill sets. The ability to train in depth for that skill set would be increased. If each ST flight were designed to contain three Special Tactics Teams (STT), the flight would be able to develop specialized skill sets oriented towards a primary, secondary, and tertiary core mission. The flight's training could be designed to apportion training weighted towards its primary core mission, less on its secondary core mission, and the remaining on its tertiary core mission. A flight organized along these lines could task organize effectively. The overall TTR to meet training requirements could be reduced if the team were to task organize.

F. PACKETIZE

This new flight organization might also allow for development of packetized STT events, individual events, and flight events during dedicated training. Each six man STT

would share the same training needs. If this six-man STT were to consistently operate as an element, the team would maintain proficiency on a set of operational skills. This STT could then focus only on training that requires proficiency updates. The TTR to perform all the necessary MET's would be reduced. This type of mission focused organization would prevent individuals from over training skills that are already proficient. Under the current ST training program, the entire flight enters dedicated training together. Training as an entire flight fails to prevent training of skills that individual operators are already proficient at.

Along with this benefit, the flight's flattened organization structure would allow elements and individuals to pursue opportune training during times other than team dedicated training cycle. A six-man STT that is not deployed or tasked with mission support events could pursue training that fills its training shortfalls. The element would be free to seek opportune training based on its prioritized needs. Individual operators not deployed would also be enabled to pursue prioritized individual opportune training. Individual training events could be identified and prioritized to readily establish training goals for individual operators on station but not involved in dedicated team training.

This packetization of ST skill sets should also allow a full flight sized event to envelop multiple mission sets. Each STT would be capable of rolling into a full flight sized event but remain flexible enough to focus on its own primary skill set. The present ST training system does not necessarily provide this flexibility. An example of this inflexibility is the requirement for a Combat Controller to perform an airfield seizure mission. The intent of this requirement is for the controller to perform some portion of the Jump Clearing Team (JCT) mission. However, a controller performing equipment recovery associated with a JCT mission would not be fulfilling the intent of the requirement. Under this packetized skill set organizational structure, he could perform a recovery type mission associated with the airfield mission and meet the MET requirement. The equipment recovery training would train the function identified as his team's primary task during the airfield seizure mission.

The final technique presented to reduce the TTR is to matrix the infiltration MET events with specific mission sets. This technique can be employed to identify the importance of each infiltration means to a given mission. Each ST core mission has an

associated primary, secondary and tertiary infiltration means. For instance, the primary infiltration means for a standard Personnel Recovery (PR) mission is usually the airland option. If mission analysis precludes this option, a secondary option might be to proceed overland to the survivor. A Subsequent option might be a MFF insertion. The matrix of infiltration means for a PR element would reflect these priorities. A ST element task organized against the PR mission would train infiltration means accordingly.

Although each STT would attempt to train every infiltration means necessary, the matrix of infiltration means and core mission would identify the most vital training required. Once an STT performs the primary, secondary, and tertiary infiltration means it can begin to train for less likely scenarios, such as amphibious insertion. For instance, an STT task organized as a primary Special Reconnaissance (SR) team would likely not train for amphibious infiltration unless it was already proficient in MFF, static line and an associated tertiary infiltration means such as overland infiltration.

G. SUMMARY

This chapter systematically identified options to reconcile the imbalance between Training Time Allotted (TTA) and Training Time Required (TTR). The three options available, increase the TTA, decrease the TTR, or combinations of both are fairly obvious. Raising the MAF through control of military leave, reduction of PCS frequency, and control of official appointments can increase TTA. Manipulation of the Special Tactics Training and Allocation System can increase the training time available and in turn increase TTA.

TTR can be reduced in various ways. First, Mission Essential Tasks (MET's) can be deleted or removed reducing the number of required training events. Second, increasing the number of Field Training Exercises accomplishes more training during a given day. Third, training events can be combined cutting the TTR. Fourth, standard training packages could help save time and increase efficiency. Fifth, a minimum level of proficiency could be maintained eliminating the time consuming crawl phase of training. The sixth way TTR can be reduced is by training only to the minimum SORTS percentage alleviating the requirement for every operator to maintain proficiency on certain skills. The next technique to reduce TTR is to core mission specialize reducing TTR through task organization. Finally, developing a matrix of infiltration means and

missions allows the operators to train most applicable infiltration methods fully while attempting to minimize training on less likely mission scenarios.

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V. SUMMARY, RECOMMENDATIONS, AND CONCLUSION

A. SUMMARY

This thesis used a number of steps in order to substantiate a hypothesis; the divergence of Air Force and SOCOM missions combined with sub-optimal readiness organization has strained the ability of Special Tactics to meet operational objectives. The fist step was to identify ST operational requirements. The ST operational requirements are to perform the designated ST core competencies when tasked with a given mission. ST core competencies Terminal Control, Recovery, and Reconnaissance are derived from the five AFSOC mission areas. AFSOC's mission areas are a result of the integration of the six Air Force core competencies and nine SOCOM primary missions.

The 720 STG developed nine core tasks to support its core competencies. Three core tasks; Air Traffic Control (ATC), Terminal Attack Control (TAC), and austere airfield operations directly support the Terminal Control core competency. The ST Recovery core competency demands in depth training of three core tasks, Personnel Recovery (PR), equipment recovery, and battlefield trauma. Finally, survey/assessment, weather forecasting, and Special Reconnaissance (SR) core tasks ensure readiness for the reconnaissance core competency.

With the operational demands defined, the Training Time Required (TTR) to meet those demands could be undertaken. The TTR spreadsheet provides a useful quantification of the time involved to train for ST operational demands. The ST Pararescueman needs **597** hours of training to complete the 56 required events. The ST Combat Controller needs **573** hours to complete the 80 required tasks.

A combination of the 1996 Man-hours Availability Factor (MAF) study and the Special Tactics Training and Allocation System (STTAS) generated the Training Time Allotted (TTA) per operator, **545.5 hours** for a given nine-month period, establishing a standard to compare to the available TTR. The TTA per team, **9,819** hours, is the result of the 545.5 hours multiplied by 18, the number of operators on that team.

The total TTR was determined by converting the generic TTR, to MAF hours and factoring in special case events that are only required of a percentage of the available

operators. The total CCT TTR is **10,911** hours per team. The end result is that the Training Time Available is less than the Training Time Required. The difference in this case is **1,092 hours**. The Pararescueman (PJ) TTR, **11,226** hours, is also greater than the TTA, **9819** hours. The shortfall for pararescueman is **1,407 hours**.

The three overall options available to reconcile the imbalance between TTA and TTR brought to light many considerations. The three general approaches are to increase the TTA, decrease the TTR, or a combination of both. Raising the MAF through control of military leave, reduction of PCS frequency, and control of official appointments can increase TTA. Manipulation of the Special Tactics Training and Allocation System could also increase the TTA.

There are eight options to decrease time required in order to bring it in line with the time allotted. First, Mission Essential Tasks (MET's) can be deleted or removed reducing the number of required training events reducing the TTR. Second, increasing the number of Field Training Exercises accomplishes more training during a given day. Third, training events can be combined cutting the TTR. Fourth, standard training packages could help save time and increase efficiency. Fifth, a minimum level of proficiency could be maintained eliminating the time consuming crawl phase of training. The sixth way TTR can be reduced is by training only to the minimum SORTS percentage alleviating the requirement for every operator to maintain proficiency on certain skills. The next technique to reduce TTR is to specialize by core mission thus reducing TTR through task organization. Finally, developing a matrix of infiltration means and missions allows the operators to train most applicable infiltration methods fully while attempting to minimize training on less likely mission scenarios.

B. RECOMMENDATIONS

1. Manage Official Appointments

Of the three options identified to increase ST MAF, only the management of official appointments is recommended at this time. Official appointments including flight physicals, dental exams, and Professional Military Education (PME) can adversely impact individual and flight readiness training. The exact nature of how to control or manage appointments is not determined here. The goal of such a system should be to minimize the impact of appointments during crucial readiness training. The flight

commander, operations section, and individual operator should coordinate well in advance the most opportune time to accomplish such official duties.

The two other options available to increase ST MAF deal with control of individual leave and Permanent Change of Station (PCS). Neither option is recommended at this time. Block leave might help increase time available but the flexibility and morale of ST might be adversely impacted. The leave request system presently in place allows for maximum flexibility. The individual operator normally seeks leave during times that will affect his training the least. Block leave would not only restrict individual flexibility but also restrict squadron flexibility.

2. Explore PCS Reduction Options

Although a reduction in frequency of PCS moves can significantly affect training time available at both the losing and gaining bases a comprehensive study of the exact benefits must be accomplished. The Special Tactics Expeditionary (STX) concept should be fully explored. Particular attention should be paid to the TTA gain that might result from consolidation of overseas operator positions into stateside units. These benefits should be compared to the TTA gained by lengthening overseas assignments through voluntary or involuntary means. The STX concept may run contrary to SOF focus on theater engagement, regional expertise, cultural awareness, and the trend of SOF as the initial force pushing the bounds of theater access.

3. Evaluate STTAS

Another area requiring further examination is the STTAS. The system was developed and implemented in 1998. The operational environment is not the same as it was in 1998. AFSOC Program Plan 96-01, a major factor considered in development of the STTAS, is no longer in effect. The STTAS must be evaluated for currency, effectiveness, and accuracy. The 720 STG should solicit input from each squadron concerning the impact STTAS has on readiness. A cost benefit analysis of the 60/40 split should be accomplished. This analysis should attempt to determine when team training is more beneficial to readiness than an off station exercise. In addition, the way the split is determined should be re-evaluated. Particular attention should be given to how leave, PME, and formal schools come into play.

4. Maintain Squadron Mission Essential Tasks

The next area addressed concerns reducing the TTR. A critical call must be made at the highest level to either keep squadron MET's as is or to remove MET's that might be elevated to a group level task. This work recommends that the best alternative is to maintain the existing squadron MET's. In order to remove or elevate a squadron MET to a group level task proper justification must be offered. Is the MET inherent to the success of a squadron mission? Does the task require a separate unit, tasked as functional expert for a single MET? What impact would removal of a squadron MET have on the unit, the 720 STG, and the individual operators? Can ST afford the manpower involved in the creation of a group level entity focused on a specific core task? The answers to these questions do not lend credence to the removal of any MET or to the elevation of a MET to the group level. Recovery, reconnaissance, and terminal control are imbedded and interrelated squadron core tasks.

There is, however, one MET that is included in the PJ events that should be considered for elimination. The Reconnaissance and Surveillance Practical as a separate event may not be the best use of a Pararescueman's time. The reconnaissance concept of operations should be reviewed to determine the likelihood of a PJ employing on such a mission. If PJ's are considered necessary for reconnaissance type missions, do they require specific training in addition to events contained in AFSOCI 36-2204? A number of events partially prepare a PJ for a reconnaissance type mission including Small Unit Tactics, overland movement, ground search, and reconnaissance equipment refresher. The 24 MAF hours spent on the reconnaissance practical can be better spent on readiness training more applicable to the PJ portion the ST mission.

5. Improve the STS Training Template

The next recommendation wraps three alternatives into one recommendation. Three options to decrease TTR involve increasing the number of FTX's, combining events, and standardized training packages. The dedicated team training template developed by the 23 STS provides a framework to help employ each of these options. The recommendation is to use the 23 STS training template as a baseline approach to readiness. The template goes a long way but it can be improved. First, a TTR tracking system could be implemented to track progress. The TTR tracking could be used to

avoid overtraining specific events. The TTR tracking would be useful to identification of the trade off in training accomplished versus training shortfalls. The improved template can help the Special Tactics Officer (STO) identify readiness strengths and weaknesses. The template can help identify the optimum number of FTX's, identify opportunities for combined or round robin events, and help identify standard training packages. In coordination with this improved template, the squadron training shop should be fully employed to help with long range planning and coordination in order to limit time spent by the team preparing, planning, and coordinating training events.

6. Task Organize via a Six-Man Special Tactics Team

The time to specialize according to core mission is now at hand. The time required to meet operational demands exceeds that allotted. However, a new approach using core mission specialization can help alleviate the problem. Specialization by flight is not the best option. If a new concept of operations is developed based on a six man Special Tactics Team (STT), a clear opportunity to specialize develops. Each ST Flight could be comprised of three six man STT's. Each STT would have a primary, secondary, and tertiary mission. Each STT would employ together, train together, and therefore share the same readiness needs. This approach would flatten the organizational structure of the flight and squadron. Each STT would be empowered to seek opportune training to fully develop its primary and secondary core mission while minimizing time spent training its tertiary mission until the others are fully trained.

The reduced span of control creates a near autonomous operational team capable of deploying as a STT contributing to any SOF or conventional mission. Because ST rarely if ever employs as a flight, task organizing along core competencies makes sense. Not only does this follow concepts and recommendations outlined in FM 25-101, Battle Focused Training, but it creates the opportunity to reduce TTR and improve readiness. FM 100-25 recommends that a unit execute training as it executes combat. "The chain of command is present, in charge and responsible" (p. 4-2). The six-man STT concept of operations can help operationalize STO's. It will give STOs an in depth appreciation of operational mission development. The six-man STT will provide each STT with leadership, limited topcover, and officer advocacy when employed. It is recommended that the ST Team Leader be provided specific guidance as to his priorities. Team Leader

guidance books should be developed to maintain standard training approaches ensuring quality STT readiness.

7. Matrix Infiltration Means

Tied to this recommendation to task organize along ST core competencies is the recommendation to matrix infiltration and exfiltraion means according to core tasks. If a matrix of infiltration means is developed it can provide a prioritized list of training events to support the core competencies required of that STT. A matrix can maximize readiness of a STT to employ via the most probable means and minimize time training on less likely mission scenarios. The development of this matrix will require complex mission analysis by experienced ST operators.

C. CONCLUSION

USAF Special Tactics (ST) is a high leverage Special Operations force. ST exhibited asymmetric impact during Operation Enduring Freedom. Special Tactics impact can be categorized into three areas, theater access, air-to-ground interface, and recovery operations. As 3.6 % of AFSOC and only .8 % of US Special Operations Command, ST was responsible for control of approximately 85 % of all air strike missions prior to Operation Anaconda. ST was responsible for 100% of the 21 tactical airfield surveys ensuring airlift support could safely operate inside the region. ST controlled 15 critical aerodromes in 3 countries throughout the region. The ATC services provided to over 8,000 sorties included the first ever combat employment of the Mobile Microwave Landing System. The IFR capability was extremely important to continued airflow into this landlocked region with little to no secure land routes.

The ST operational requirements are embodied in its three core competencies, terminal control, recovery, and reconnaissance. ST must train to meet these operational demands. Although presently the Training Time Required (TTR) to meet these demands exceeds the Training Time Allotted (TTA), there are strategies available to deal with this training shortfall. ST readiness challenges can be overcome. With an improved readiness system in place ST can be more prepared to meet the operational demands of both the USAF and SOCOM. ST should capitalize on its flexibility and responsiveness to continually evolve with the Air Force and SOCOM maintaining its niche. ST should

implement a readiness system that best prepares for operational requirements, encourages innovative approaches, and maintains the flexibility to train for emerging missions.

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APPENDIX A. TRAINING TIME REQUIRED SPREADSHEET -CCT

				ATC	Prac					Special
CCT EVENTS	SORTS	METL	class	Sim	Ex	FTX	TDY	Total	subtot	Case
3.2.1. Recovery Tasks										
3.2.1.1. Personnel Recovery										
3.2.1.1.7. SST	33%	1/9m			5			6		
3.2.1.2. Equipment Recovery										
3.2.1.2.2. Search Dive		1/9m			8			11	17	
3.2.2. Terminal Control										
3.2.2.1. Assault Zone										
3.2.2.1.1. Review AFI 13-217		1/9m						3		
3.2.2.1.2. Demolitions Practical and Academics		1/9m			8	x		13		
3.2.2.1.3. Airfield Seizures	66%	1/9m			8			8		
3.2.2.1.4. FARP		1/9m			4			5		
3.2.2.1.5. Marshalling		1/9m			3			4		
3.2.2.1.7. Conventional AZ Procedures		1/9m						2		
3.2.2.2. ATC										
3.2.2.2.1. Anti-Hijack		1/9m	.5					0.5		
3.2.2.2.2. Aircraft Characteristics		1/9m						1		
3.2.2.2.3. BASH		1/9m	.5					0.5		
3.2.2.2.4. Wake Turbulence		1/9m						1		
3.2.2.2.5. Terminal Area Visibility		1/9m						1		
3..2.2.2.6. NORDO Academic		1/9m						1		
3.2.2.2.7 GFR Academic		1/9m						2		
3.2.2.2.8. Aircraft Separation		1/9m						2		
3.2.2.2.9. FAA 7110.65 Chapter 3 Review		1/9m						4		
3.2.2.2.10. CAC Academic		1/9m						2		
3.2.2.2.11. CAC Practical	25%	3/9m		6	6			12		
3.2.2.2.12. ATC Practical	100%	5/9m		10	10			20	82	
3.2.2.3. Termainal Attack Control										
3.2.2.3.1. CFF Academic		1/9m	.5					4.5		
3.3.2.2.3.2. Fire Support Annex Development		1/9m						2		
3.2.2.3.3. ECAS/CFF Refresher		1/9m						8		
3.2.2.3.4. Indirect Fires Refresher		1/9m						4		
3.2.2.3.5. TAC Practical (IAW AFSOC 50-1)	25%				32	12		44		120
3.2.2.3.5.1. Non-Current TAC Practical		A/R				n/a	n/a			
3.2.2.3.6. Gunship CFF Practical	66%	1/9m			8			12		
3.2.2.3.7. Helo CFF Practical		1/9m			8			10	84.5	
3.2.3. Reconnaissance										

3.2.3.1 Surveys										
3.2.3.1.1. Survey Academics		1/9m						n/a		
3.2.3.1.2. LX/HLZ/DZ/FARP Survey Practical		1/9m			26			26		
3.2.3.1.3. AutoCAD		1/9m (adv)						n/a		
3.2.3.2. Weather										
3.2.3.2.1. Weather Academic		1/9m						2		
3.2.3.2.2. Limited Weather Observation		1/9m			1.5			1.5		
3.2.3.3. Special RECON										
3.2.3.3.3. R and S Practical	33%	1/9m			16	12		32	61.5	
3.2.4.1. C4I										
3.2.4.1.1. Communications Equipment		1/9m						2		
3.2.4.1.2. NAVAIDS Academic		1/9m	.5					4.5		
3.2.4.1.3. Electronic Equipment (beacons/laser)		1/9m						1		
3.2.4.1.4. Computers		1/9m						1		
3.2.4.1.5. Portable Radio Operation		1/9m			4			8		
3.2.4.1.6. Vehicular Radio Operations Practical		1/9m			2			3		
3.2.4.1.7. Radar Beacons Practical		1/9m			2			4		
3.2.4.1.8. Data Transmission Practical		1/9m			4			8		
3.2.4.1.9. Intelligence Oversight		1/12m						1	32.5	
3.2.4.2. Defensive Measures										
3.2.4.2.1. SMUT Academics		1/9M						2		
3.2.4.2.1.1. SMUT Practical	100%	1/9M			8	12		20		
3.2.4.2.2. IADs Academic		1/9m			8			10		
3.2.4.2.2.1. Live Fire IADs	100%	2/9m			16			16		
3.2.4.2.3. Extreme Environ. Training Academics		1/9m						2		
3.2.4.2.3.1. Ex. Envrion. Training Practical	66%	1/9m			8			8	58	
3.2.4.3. Mission Prep										
3.2.4.3.1. Mission Planning Academic		1/9m						4		
3.2.4.3.1.1. Full Mission Profile Practical		3/9m			48	36		84		
3.2.4.3.2. Briefing Presentation Academics		1/9m	.5					1.5	89.5	
3.2.4.4. Inflitrate/Exfiltrate										
3.2.4.4.1. Airdrop Rigging Review Academic		1/9m						4		
3.2.4.4.2. MFF Procedures Video		1/12m	.5					0.5		
3.2.4.4.2.1. MFF EPs		1/12m						1		
3.2.4.4.3. night Tactical S/L Practical	66%(2/9)	1/9m	.5		8	12		22.5		96
3.2.4.4.4. Night Tactical MFF	66%(2/9)	1/9m			16	12		35		96
3.2.4.4.5. Night CRRC		1/9m			9			17		
3.2.4.4.6. Tactical Overland Movement	66%(4/9)	1/9m			8			10		288
3.2.4.4.6.1. Road March		1/9m			2			2		

3.2.4.4.7. Night Equpment Fast Rope	66%	1/9m			8			8		
3.2.4.4.8. Night Helocast	66%	1/9m			7			12		
3.2.4.4.9. Rope/Caving Ladder		1/9m			2			2		
3.2.4.4.10. Compass Dive		1/9m			12			18		
3.2.4.4.11. Amphibious Operation		1/9m	.5		9			14.5		
3.2.4.4.12. Helo Duck Operation		1/18m			10			12		
3.2.4.4.13. RAMZ	33%	1/9m			12			16	174.5	
3.2.4.4.14. MFF (JM)		1/6m	n/a							
3.2.4.4.15. S/L (JM)		1/6m	n/a							
3.2.4.4.16. Fastrope/Rappel/Helocast Master		1/12m	N/a							
3.2.4.4.18. Rappel Master		1/12m	n/a/							
3.2.4.4.19. Helocast Master		1/12m	n/a							
3.2.4.4.20. Tandem Master		1/12m	/a							
3.2.4.4.21. Dive Supervisior		1/12m	/a							
3.2.4.5. Deploy/Sustain/Redeploy										
3.2.4.5.1. Hazardous Cargo Class		1/12m	/a							
3.2.4.5.2. Pallet Build-up Class		1/12m	/a							600
3.2.4.5.3. Explosives Safety Class		1/12m	/a						0	
									599.5	
Total Hours			141	16	346.5	96	0	**599.5**		
Hours per media				6	8	12				
Total Training Days			17.6	.667	43.31	8	0	71.604		
MAF hours			141	21.3	346.5	64	0	**572.83**		
TTR per Team					18 x	573		10311		
Special Case TTR								600		
Total TTR per Team								**10911**		

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APPENDIX B. TRAINING TIME REQUIRED SPREADSHEET - PJ

PJ Events	SORTS %	METL	class	Prac Ex	FTX	TDY	Total	sub/tot	Special case
3.2.1. Recovery Tasks									
3.2.1.1. Personnel Recovery									
3.2.1.1.1. DAR		1/9m	2	6			8		
3.2.1.1.3. EPA		1/9m	2	6			8		
3.2.1.1.4. Air Search Procedures		1/9m	4				4		
3.2.1.1.5. Hoist Extraction Stokes	66%	1/9m	2	10			12		
3.2.1.1.6. Extrication	66%	1/9m		8			8		
3.2.1.1.7. SST	66%	1/9m	4				4		
3.2.1.1.8. CSAR		1/9m	8	16			24		
3.2.1.1.9. Hight Angle Rescue		1/9m	8	24			32	100	
PJ Events									
3.2.1.2. Equipment Recovery									
3.2.1.2.1 Ground Search		1/9m	8	16			24		
3.2.1.2.2. Search Dive		1/9m	3	8			11	35	
3.2.1.3. Medical									
3.2.1.3.1. NREMT	100%		16			80	96		
3.2.1.3.2. SIT MEDEX	100%	4/9m	4	32			36	132	
3.2.2. Terminal Control									
3.2.2.1. Assualt Zone									
3.2.2.1.3. Airfield Seizures	66%	1/9m	8				8		
3.2.2.1.5. Marshalling		1/9m	1				1		
3.2.2.1.6. JCCP		1/9m	1				1	10	
3.2.3.3. Special Reconn									
3.2.3.3.1. Threat Identification									
3.2.3.3.2. R n S Refresher/equipment			4				4		
3.2.3.3.3. R n S Practical	33%	1/9m		16	12		28	32	
3.2.4. Enabling Tasks									
3.2.4.1. C4I									
3.2.4.1.1. Communications Equipment		1/9m	4				4		
3.2.4.1.4. Computers		1/9m	1				1		
3.2.4.1.5. Portable Radio Operation		1/9m	4				4		
3.2.4.1.9. Intelligence Oversight		1/12m	1				1	10	
3.2.4.2. Defensive Measures									
3.2.4.1. SMUT Academic		1/9m	2				2		
3.2.4.2.1.1. SMUT Practical	100%	1/9m		8	12		20		
3.2.4.2.2. IADs Academic		1/9m	2	8			10		
3.2.4.2.2.1. Live Fire IADs	100%	1/9m		8			8		
3.2.4.2.3. Ext. Environment Traning Academic		1/9m	2				2		
3.2.4.2.3.1. Ext. Envriron. Training Practical	66%	1/9m		8			8	50	
3.2.4.3. Mission Prep									

3.2.4.3.1. Mission Planning Academic		1/9m	4				4		
3.2.4.3.1.1. Full Mission Profile Practical		3/9m		48	36		84		
3.2.4.3.2.Briefing Presentation Fund. Academics		1/9m	1				1	89	
3.2.4.4. Infiltrate/Exfiltrate									
3.2.4.4.1. Airdrop rigging Review Academic		1/9m	4				4		
3.2.4.4.2. MFF Procedures Video		1/12m	0.5				0.5		
3.2.4.4.2.1. MFF EPs		1/12m	1				1		
3.2.4.4.3. Night Tactical S/L Practical	66%(2/9)	1/9m	2.5	8	12		22.5		96
3.2.4.4.4. Night Tactical MFF	66%(2/9)	1/9m	7	16	12		35		96
3.2.4.4.5. Night CRRC		1/9m	8	7			15		
3.2.4.4.6. Tactical Overland Movement	66%(4/9)	1/9m	2	8			10		288
3.2.4.4.7. Road March		1/9m		2			2		
3.2.4.4.8. Night Equipment Fast Rope	66%	1/9m		8			8		
3.2.4.4.9. Night Helocast	66%	1/9m	4	8			12		
3.2.4.4.10. Rope/Caving Ladder		1/9m		2			2		
3.2.4.4.11. Compass Dive		1/9m	6	8			14		
3.2.4.4.12. Amphibious Operation		1/9m	2.5	12			14.5		
3.2.4.4.13. Helo Duck Operation		1/18m	2	10			12		
3.2.4.4.14. RAMZ	66%	1/9m	2	12			14	166.5	
3.2.4.4.15. MFF (JM)		1/6m							
3.2.4.4.16. S/L (JM)		1/6m							
3.2.4.4.17. Fastrope Master		1/12m							
3.2.4.4.18 Fastrope Master		1/12m							
3.2.4.4.19. Helocast Master		1/12m							
3.2.4.4.20. Tandem Master		1/12m							
3.2.4.4.21. Dive Supervisor		1/12m							
3.2.4.5. Deploy/Sustain/Redeploy									
3.2.4.5.1. Hazardous Cargo Class		1/12m							
3.2.4.5.2. Pallett Build-up Class		1/12m							
3.2.4.5.3. Explosives Safety Class		1/12m							480
Total hours per media			138	323	84	80		**624.5**	
Media hours per day			8	8	12	8			
Days per media			17.25	40.38	7	10		74.63	
Total MAF Hours			138	323	56	80	597		
							624.5		
			545.5 x	18 =	9819		597	X 18 =	10746
									480
					9819				**11226**

APPENDIX C. TTR SPREADSHEET CCT 22 STS/21 STS

				ATC	Prac					Spec
CCT EVENTS	SORTS	METL	class	Sim	Ex	FTX	TDY	Total	sub/tot	case
3.2.1. Recovery Tasks										
3.2.1.1. Personnel Recovery										
3.2.1.1.7. SST	33%	1/9m			5			6		
3.2.1.2. Equipment Recovery										
3.2.1.2.2. Search Dive		1/9m			8			11	17	
3.2.2. Terminal Control										
3.2.2.1. Assault Zone										
3.2.2.1.1. Review AFI 13-217		1/9m						3		
3.2.2.1.2. Demolitions Practical and Academics		1/9m			8	x		13		
3.2.2.1.3. Airfield Seizures	66%	1/9m			8			8		
3.2.2.1.4. FARP		1/9m			4			5		
3.2.2.1.5. Marshalling		1/9m			3			4		
3.2.2.1.7. Conventional AZ Procedures		1/9m						2		
3.2.2.2. ATC										
3.2.2.2.1. Anti-Hijack		1/9m	.5					0.5		
3.2.2.2.2. Aircraft Characteristics		1/9m						1		
3.2.2.2.3. BASH		1/9m	.5					0.5		
3.2.2.2.4. Wake Turbulence		1/9m						1		
3.2.2.2.5. Terminal Area Visibility		1/9m						1		
3..2.2.2.6. NORDO Academic		1/9m						1		
3.2.2.2.7 GFR Academic		1/9m						2		
3.2.2.2.8. Aircraft Separation		1/9m						2		
3.2.2.2.9. FAA 7110.65 Chapter 3 Review		1/9m						4		
3.2.2.2.10. CAC Academic		1/9m						2		
3.2.2.2.11. CAC Practical	25%	3/9m		6	6			12		
3.2.2.2.12. ATC Practical	100%	5/9m		10	10			20	82	
3.2.2.3. Termainal Attack Control										
3.2.2.3.1. CFF Academic		1/9m	.5					4.5		
3.3.2.2.3.2. Fire Support Annex Development		1/9m						2		
3.2.2.3.3. ECAS/CFF Refresher		1/9m						8		
3.2.2.3.4. Indirect Fires Refresher		1/9m						4		
3.2.2.3.5. TAC Practical (IAW AFSOC 50-1)	25%		8				40	48		200
3.2.2.3.5.1. Non-Current TAC Practical		A/R				n/a	n/a			
3.2.2.3.6. Gunship CFF Practical	66%	1/9m	8				40	48		
3.2.2.3.7. Helo CFF Practical		1/9m							114.5	
3.2.3. Reconnaissance										

3.2.3.1 Surveys										
3.2.3.1.1. Survey Academics		1/9m						n/a		
3.2.3.1.2. LX/HLZ/DZ/FARP Survey Practical		1/9m			26			26		
3.2.3.1.3. AutoCAD		1/9m (adv)						n/a		
3.2.3.2. Weather										
3.2.3.2.1. Weather Academic		1/9m						2		
3.2.3.2.2. Limited Weather Observation		1/9m			1.5			1.5		
3.2.3.3. Special RECON										
3.2.3.3.3. R and S Practical	33%	1/9m			16	12		32	61.5	
3.2.4.1. C4I										
3.2.4.1.1. Communications Equipment		1/9m						2		
3.2.4.1.2. NAVAIDS Academic		1/9m	.5					4.5		
3.2.4.1.3. Electronic Equipment (beacons/laser)		1/9m						1		
3.2.4.1.4. Computers		1/9m						1		
3.2.4.1.5. Portable Radio Operation		1/9m			4			8		
3.2.4.1.6. Vehicular Radio Operations Practical		1/9m			2			3		
3.2.4.1.7. Radar Beacons Practical		1/9m			2			4		
3.2.4.1.8. Data Transmission Practical		1/9m			4			8		
3.2.4.1.9. Intelligence Oversight		1/12m						1	32.5	
3.2.4.2. Defensive Measures										
3.2.4.2.1. SMUT Academics		1/9M						2		
3.2.4.2.1.1. SMUT Practical	100%	1/9M			8	12		20		
3.2.4.2.2. IADs Academic		1/9m			8			10		
3.2.4.2.2.1. Live Fire IADs	100%	2/9m			16			16		
3.2.4.2.3. Extreme Environ. Training Academics		1/9m						2		
3.2.4.2.3.1. Ex. Envrion. Training Practical	66%	1/9m			8			8	58	
3.2.4.3. Mission Prep										
3.2.4.3.1. Mission Planning Academic		1/9m						4		
3.2.4.3.1.1. Full Mission Profile Practical		3/9m			48	36		84		
3.2.4.3.2. Briefing Presentation Academics		1/9m	.5					1.5	89.5	
3.2.4.4. Inflitrate/Exfiltrate										
3.2.4.4.1. Airdrop Rigging Review Academic		1/9m						4		
3.2.4.4.2. MFF Procedures Video		1/12m	.5					0.5		
3.2.4.4.2.1. MFF EPs		1/12m						1		
3.2.4.4.3. night Tactical S/L Practical	66%(2/9)	1/9m	.5		8	12		22.5		96
3.2.4.4.4. Night Tactical MFF	66%(2/9)	1/9m			16	12		35		96
3.2.4.4.5. Night CRRC		1/9m			9			17		
3.2.4.4.6. Tactical Overland Movement	66%(4/9)	1/9m			8			10		288
3.2.4.4.6.1. Road March		1/9m			2			2		

3.2.4.4.7. Night Equpment Fast Rope	66%	1/9m			8			8		
3.2.4.4.8. Night Helocast	66%	1/9m			7			12		
3.2.4.4.9. Rope/Caving Ladder		1/9m			2			2		
3.2.4.4.10. Compass Dive		1/9m			12			18		
3.2.4.4.11. Amphibious Operation		1/9m	.5		9			14.5		
3.2.4.4.12. Helo Duck Operation		1/18m			10			12		
3.2.4.4.13. RAMZ	33%	1/9m			12			16	174.5	
3.2.4.4.14. MFF (JM)		1/6m	n/a							
3.2.4.4.15. S/L (JM)		1/6m	n/a							
3.2.4.4.16. Fastrope/Rappel/Helocast Master		1/12m	N/a							
3.2.4.4.18. Rappel Master		1/12m	n/a/							
3.2.4.4.19. Helocast Master		1/12m	n/a							
3.2.4.4.20. Tandem Master		1/12m	/a							
3.2.4.4.21. Dive Supervisior		1/12m	/a							
3.2.4.5. Deploy/Sustain/Redeploy										
3.2.4.5.1. Hazardous Cargo Class		1/12m	/a							
3.2.4.5.2. Pallet Build-up Class		1/12m	/a							680
3.2.4.5.3. Explosives Safety Class		1/12m	/a						0	
									629.5	
Total Hours			151	16	298.5	84	80	**629.5**		
Hours per media			8	6	8	12	8			
Total Training Days			8.9	2.667	3731	7	10	75.854		
MAF hours			151	21.3	298.5	56	80	**606.83**		
TTR per Team					18 x	607		10926		
Special Case TTR								680		
Total TTR per Team								**11606**		

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APPENDIX D. TTR PARARESCUEMAN NON NREMT YEARS

				Prac					Special
PJ Events	SORTS %	METL	class	Ex	FTX	TDY	Total	sub/tot	case
3.2.1. Recovery Tasks									
3.2.1.1. Personnel Recovery									
3.2.1.1.1. DAR		1/9m	2	6			8		
3.2.1.1.3. EPA		1/9m	2	6			8		
3.2.1.1.4. Air Search Procedures		1/9m	4				4		
3.2.1.1.5. Hoist Extraction Stokes	66%	1/9m	2	10			12		
3.2.1.1.6. Extrication	66%	1/9m		8			8		
3.2.1.1.7. SST	66%	1/9m	4				4		
3.2.1.1.8. CSAR		1/9m	8	16			24		
3.2.1.1.9. Hight Angle Rescue		1/9m	8	24			32	100	
PJ Events									
3.2.1.2. Equipment Recovery									
3.2.1.2.1 Ground Search		1/9m	8	16			24		
3.2.1.2.2. Search Dive		1/9m	3	8			11	35	
3.2.1.3. Medical									
3.2.1.3.1. NREMT	100%								
3.2.1.3.2. SIT MEDEX	100%	4/9m	4	32			36	132	
3.2.2. Terminal Control									
3.2.2.1. Assualt Zone									
3.2.2.1.3. Airfield Seizures	66%	1/9m	8				8		
3.2.2.1.5. Marshalling		1/9m	1				1		
3.2.2.1.6. JCCP		1/9m	1				1	10	
3.2.3.3. Special Reconn									
3.2.3.3.1. Threat Identification									
3.2.3.3.2. R n S Refresher/equipment			4				4		
3.2.3.3.3. R n S Practical	33%	1/9m		16	12		28	32	
3.2.4. Enabling Tasks									
3.2.4.1. C4I									
3.2.4.1.1. Communications Equipment		1/9m	4				4		
3.2.4.1.4. Computers		1/9m	1				1		
3.2.4.1.5. Portable Radio Operation		1/9m	4				4		
3.2.4.1.9. Intelligence Oversight		1/12m	1				1	10	
3.2.4.2. Defensive Measures									
3.2.4.1. SMUT Academic		1/9m	2				2		
3.2.4.2.1.1. SMUT Practical	100%	1/9m		8	12		20		
3.2.4.2.2. IADs Academic		1/9m	2	8			10		
3.2.4.2.2.1. Live Fire IADs	100%	1/9m		8			8		
3.2.4.2.3. Ext. Environment Traning Academic		1/9m	2				2		
3.2.4.2.3.1. Ext. Envriron. Training Practical	66%	1/9m		8			8	50	
3.2.4.3. Mission Prep									

3.2.4.3.1. Mission Planning Academic		1/9m	4				4		
3.2.4.3.1.1. Full Mission Profile Practical		3/9m		48	36		84		
3.2.4.3.2.Briefing Presentation Fund. Academics		1/9m	1				1	89	
3.2.4.4. Infiltrate/Exfiltrate									
3.2.4.4.1. Airdrop rigging Review Academic		1/9m	4				4		
3.2.4.4.2. MFF Procedures Video		1/12m	0.5				0.5		
3.2.4.4.2.1. MFF EPs		1/12m	1				1		
3.2.4.4.3. Night Tactical S/L Practical	66%(2/9)	1/9m	2.5	8	12		22.5		96
3.2.4.4.4. Night Tactical MFF	66%(2/9)	1/9m	7	16	12		35		96
3.2.4.4.5. Night CRRC		1/9m	8	7			15		
3.2.4.4.6. Tactical Overland Movement	66%(4/9)	1/9m	2	8			10		288
3.2.4.4.7. Road March		1/9m		2			2		
3.2.4.4.8. Night Equipment Fast Rope	66%	1/9m		8			8		
3.2.4.4.9. Night Helocast	66%	1/9m	4	8			12		
3.2.4.4.10. Rope/Caving Ladder		1/9m		2			2		
3.2.4.4.11. Compass Dive		1/9m	6	8			14		
3.2.4.4.12. Amphibious Operation		1/9m	2.5	12			14.5		
3.2.4.4.13. Helo Duck Operation		1/18m	2	10			12		
3.2.4.4.14. RAMZ	66%	1/9m	2	12			14	166.5	
3.2.4.4.15. MFF (JM)		1/6m							
3.2.4.4.16. S/L (JM)		1/6m							
3.2.4.4.17. Fastrope Master		1/12m							
3.2.4.4.18 Fastrope Master		1/12m							
3.2.4.4.19. Helocast Master		1/12m							
3.2.4.4.20. Tandem Master		1/12m							
3.2.4.4.21. Dive Supervisor		1/12m							
3.2.4.5. Deploy/Sustain/Redeploy									
3.2.4.5.1. Hazardous Cargo Class		1/12m							
3.2.4.5.2. Pallett Build-up Class		1/12m							
3.2.4.5.3. Explosives Safety Class		1/12m							480
Total hours per media			122	323	84			528.5	
Media hours per day			8	8	12				
Days per media			15.25	40.38	7			62.63	
Total MAF Hours			122	323	56		**501**		
							528.5		
			545.5 x	18 =	9819		**501**	X 18 =	9018
									480
					9819				**9498**

LIST OF REFERENCES

AFDD 2-7. 2001. Air Force Doctrine Document 2-7: Special Operations. Retrieved from the World Wide Web: https://www.doctrine.af.mil/Library/Hierarchy.asp

AFI 13-102. 1996. Air Force Instruction 13-102. Air Support Operations Center (ASOC) and Tactical Air Control Party (TACP) Training and Evaluation Procedures. Retrieved from the World Wide Web February 15, 2002: http://www2.acc.af.mil/3asog/Doonline/staneval/13-102.pdf

AFSOCI 36-2204. 2001. Special Tactics Operator Training. Hurlburt AF, FL: 720 Special Tactics Group.

Albert, R., Williams, W., Cook, C. 1999. Principles for Determining the Air Force Active/Reserve Mix. Santa Monica, CA: RAND.

Dahlman, C. and Thaler, D. 2000. Assessing Unit Readiness: Case Study of an Air Force Fighter Wing. Santa Monica, CA: RAND

Executive Summary. 2001. 720 STG Strategic Planning Workshop. Hurlburt AF, FL: 720 Special Tactics Group.

FM 25-100. 1988. Training the Force. http://usasma.bliss.army.mil/pubs/FM_25-100/PDF/ch2.pdf

FM 25-101. 1990. Battle Focused Training. Retrieved from the World Wide Web: http://www.adtdl.army.mil/cgi-bin/atdl.dll/fm/25-101/fm25101.htm

Hill, K. "An organizational Anlysis of the United States Air Force Personnel Center (AFPC) Airman Assignment Management System (AMS). Monterey, CA 2001 Naval Postgraduate School.

Hutton, H. 2002. Personal Interview. April 31, 2002.

Joint Publication1-02. "DOD Dictionary of Military and Associated Terms." Retrieved from the World Wide Web: http://www.dtic.mil/doctrine/jel/doddict/

JFSC Publication 1. The Joint Staff Officer's Guide. 2000. National Defense University. Joint Forces Staff College. Norfolk, Virginia.

JFSC Pub 1. 2000. The Joint Staff Officer's Guide. Available online at www.dtc.mil/doctinre/jel. Norfolk, Virginia: National Defense University.

MAF. 1996. "Military Man-Hour Availability Factors Update". Randolph AFB, TX:

Programs Research and Analysis and Engineering Division , Air Force Management

Engineering Agency. Retrieved October 18, 2001 from the World Wide Web: http://afmpc

Oeser, J. 1998. Memorandum for Record. 17 March 1998. "Special Tactics Tasking Allocation System." Hurlburt AF, FL: HQ AFSOC.

Oniel, P. 2002. Personal Interview April 3, 2002. NCOIC.

Rescue Mission Report. 1980. Washington D.C.: The Library Carnegie Endowment for International Peace.

Reengineering Special Tactics. Retrieved January 2002 from the World Wide Web: http://www.afmia.randolph.af.mil/monnews/mo%20new.pdf.

Report by the Working Group on Combat Control Peacetime Workload. 1996. Scott Air Force Base, Illinois: Department of the Air Force Headquarters Military Airlift Command.

Schank, J. 1997. Relating Resources to Personnel Readiness: Use of Army Strength Management Models. Santa Monica, CA: RAND.

Scott, S. 2002. Personal Interview. March 31, 2002.

SORTS Designated Operational Capability Statement. 2001. Special Tactics Operation-Mobility. Hurlburt AF, FL: 720 Special Tactics Group.

Special Tactics Mission Analysis. 2001. 720 Special Tactics Group Strategic Plan. Hurlburt AF, FL: 720 Special Tactics Group.

Strategic Planning Process. 2001. The Strategic Planning Process: 720 STG Strategic Planning Workshop. Hurlburt AF, FL: 720 Special Tactics Group.

TSRA. 2001. Training System Requirements Analysis: Special Tactics Advanced Skills Training. Hurlburt AF, FL: B3H Corporation.

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